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FINANCIAL TIMES

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NEWS SUMMARY

GENERAL BUSINESS

Dan-Air aircraft in sea: 30 saved

Equities up 3.2; Gold falls \$2

Councils must cut £600m more

Thatcher talks

Crash ruling

Ulster killing

Scientist wins

Briefly...

Table with 2 columns: RISES, FALLS. Lists various commodities and their price changes.

All BP interests in Nigeria to be nationalised today

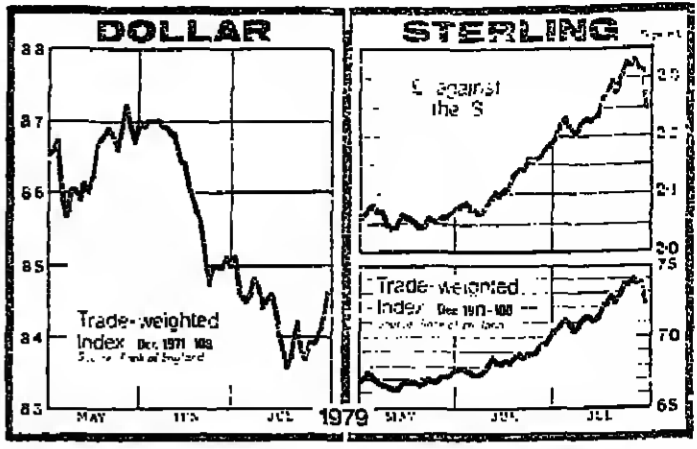
BY MARK WEBSTER IN LAGOS Nigeria is to nationalise all British Petroleum interests in the country from today in retaliation for BP's decision to sell crude oil to South Africa.

CBI forecasts industrial decline in coming year

BY JOHN ELLIOTT, INDUSTRIAL EDITOR A GRADUAL decline in industrial activity over the next year was forecast yesterday by the Confederation of British Industry.

UK oil output adequate for month

By Ray Dafter, Energy Editor BRITAIN APPEARS to have become self-sufficient in oil for the first time, if only for one month.



Sterling fall cancels gains of fortnight

BY PETER RIDDELL, ECONOMICS CORRESPONDENT STERLING dropped sharply against all major currencies yesterday, ending the almost unbroken daily rise in the seven weeks since the Budget.

Spending up

Britain's spending on energy reached a record £17bn last year, according to another Department of Energy report published yesterday.

Pressure

After the initial drop of the pressure reflected hurried closing of speculative positions in favour of sterling against the dollar built up over the past month, in addition there may have been some buying of dollars for end of the month oil payments.

Chrysler record 3-month loss

BY JOHN WYLES IN NEW YORK THE U.S. Treasury was driven yesterday to express concern about the outlook for Chrysler Corporation after the struggling motor company reported a second quarter loss of \$207.1m.

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Table of Contents listing various articles and their page numbers, including Zimbabwe Rhodesia, Afghanistan, U.S. lifestyle, etc.

Soviet raps officials over mine deaths

By David Satter in Moscow

THREE MANAGERS of the Dzhezkazgan coppermines in Soviet Kazakhstan were reprimanded and other mine officials were tried and sentenced in connection with violations of safety regulations that led to the accidental deaths of three miners, the Soviet newspaper 'Trud' reported.

Details of the negligence at one of the country's biggest coppermines bear a striking resemblance to allegations of inadequate safety procedures in the Donetsk coalmines, made by an unofficial workers' group, which was suppressed by the Soviet authorities recently.

'Trud' said that Mr. V. Gurub, director of the Dzhezkazgan Copper Combine, Mr. D. Eshpanova, chief engineer, and Mr. V. Kostyanchenko, director of the Vostochny pit, were reprimanded and several junior officials sentenced after an accident at the Vostochny pit when the doors of a lift cage broke open and three men fell to their deaths.

The trade union daily said that the men were ordered to report to work on Sunday to clear a backlog in ore extraction caused by a period when the mine was under repair. Some 31 miners crowded into the lift cage, which was intended to hold only 20.

'Trud' said the mine officials tried to conceal the nature of the accident by pressuring miners to lie to investigators about the number of men in the cage.

The newspaper said that last year there were almost 5,000 violations of the safety rules at the Dzhezkazgan mines and that on more than 1,500 occasions it was necessary to suspend work.

Similar allegations about conditions in the Donetsk coalmines were made to Western correspondents last year by a group of unemployed workers.

Mr. Vladimir Klebanov, leader of the group, said that excess overtime in the mines led to accidents which resulted in 12 to 15 deaths a year and 700 injuries.

These and other allegations were documented for Western correspondents by the workers who said they suffered persecution when they tried to raise these matters.

I.F.O. WARNS AGAINST RESTRICTIVE POLICIES

Germany faces slower 1980 growth

By Roger Boyes in Bonn

WEST GERMANY, digesting the effects of the oil crisis, faces the prospect of much slower growth and higher unemployment in 1980, although inflation may fall slightly, according to the latest report from I.F.O., the Munich-based research institute.

The upswing in the economy is however expected to continue this year and a growth rate of 3.5 to 4 per cent is forecast by the institute for 1979. But because of the oil price rises, disposable income is likely to fall in the coming year, while European and American demand for German products (I.F.O. is reckoning with a recession in the U.S. in 1980) will also weaken. Combined with the tight monetary policies being pursued by the Bundesbank, these factors are likely to push down the growth rate to between 2 and 2.5 per cent in 1980.

This in turn is expected to increase unemployment with the number of jobless reaching 950,000 in 1980, compared with an anticipated 880,000 in 1979.

I.F.O.'s forecasts are based on the assumption that most German unions will not demand supplementary wage increases to compensate for the effects of the OPEC price rises. If the unions do demand extra 'oil' money, and if the Central Bank tries to prevent an inflationary spiral by intensifying its restrictive policies, then a recession would be inevitable, I.F.O. concludes.

The institute stresses that the Central Bank should stagger any further restrictive measures over a long period. There is still a real possibility that the German trade unions will demand supplementary increases—at least in certain 'oil' component in their next wage round. Although the leadership of the powerful metalworkers' union, IG-Metall, recently rejected such demands from its Baden-Wuerttemberg regional organisation, it is by no means certain that the grass roots membership will accept this decision.

I.F.O. and indeed the unions, appear to believe that much will depend on the future behaviour of the oil companies. I.F.O. does not expect, for example, multinational companies to invest the bulk of their (substantially increased) profits in Germany. The companies have also been accused of unjustifiably raising their prices. The Federal Cartel Office last week expressed disbelief that the companies price rises were fully justified by the high OPEC increases. Deutsche BF, however, yesterday called on the Office to re-examine the evidence.

I.F.O. considers that the main effects of the higher oil costs on overall German price levels will be felt in the second half of this year, and will not make a major impact on the 1980 inflation rate. If there are no further rises in the price of crude oil this year, then inflation could well be kept down to 4 per cent next year, marginally below the anticipated rate for this year.

German building contractors are continuing to report good business, I.F.O. found, despite signs that the construction sector might be cooling down. Some 45 per cent of the respondents in I.F.O.'s survey said they had difficulties in fulfilling orders because of a shortage of skilled labour. Capacity utilisation was unusually high at a seasonally adjusted 70 per cent.

The underlying problem spotlighted by the 1980 Budget is likely to be Belgium's continued competitiveness in her major export markets of West Germany and Holland, and the resistance of the Belgian franc.

The Belgian Government's calculation that the inflation rate of about 4.5 per cent for 1979 will next year rise to 6 per cent, coincides with West German forecasts of a 1980 inflation rate that will have slowed to just over 4 per cent.

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Sharp rise in Belgian inflation expected

By Giles Merritt in Brussels

A DANGEROUS surge in Belgium's inflation rate, carrying the threat of a cut in the country's vital export trade, has been disclosed in the Belgian Government's proposed 1980 Budget.

Details of the "austerity" Budget aimed at cutting the level of State borrowing next year have made it clear that a 6 per cent inflation rate is now expected for 1980.

Real GNP growth for next year is being calculated at about 2.54 per cent—some 10 per cent lower than the expected 1979 figure of 13.5 per cent.

While the overall increase in the Belgian economy will be 8.54 per cent.

Outlining the 1980 Budget, Belgian Cabinet Ministers have stressed that the package is intended to be a tough reversal of the country's growing dependence on State borrowing with the need to bolster the Belgian franc against further speculation as one of the primary considerations.

Next year the Government borrowing requirement is to be reduced to BFR 231.7bn (£3.4bn), or 6.5 per cent of GNP, from the 1979 level of BFR 230bn, or 7 per cent of GNP.

The 1980 Budget deficit is being reduced to BFR 82.2bn from this year's level of about BFR 100bn, with a reduction in State spending being complemented by measures increasing taxation on the motorist. An increase in petrol excise is being accompanied by a levy on motor-vehicles.

The underlying problem spotlighted by the 1980 Budget is likely to be Belgium's continued competitiveness in her major export markets of West Germany and Holland, and the resistance of the Belgian franc.

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DR. SHAHPOOR BAKHTIAR, the Shah of Iran's last Prime Minister (pictured above), whose whereabouts have been a mystery since he fled from his country last February, has reappeared in Paris, where he gave a surprise press conference yesterday during which he bitterly attacked the present Iranian regime.

Dr. Bakhtiar, who was seen from office by the revolutionary movement led by Ayatollah Khomeini and who has been condemned to death in his absence, proposed that a referendum should be held to allow the Iranian people to choose freely between a monarchy and a republican government.

He painted a 'catastrophic' picture of the present situation in his country. The revolution was a step back into the past, he said. The chaos and agitation in the country was sickening and tens of thousands of innocent people had been killed.

Regarding his own political future, Dr. Bakhtiar hinted that he could be a last monarch. He indicated that he was living in France and that he had received a three-month residence permit.

Iran to hold crisis talks on economy

By Andrew Whitley in Tehran

WITH THE Iranian domestic economy still struggling nearly six months after the revolution, a top-level crisis conference is to be held in Tehran next week.

Organised by Mr. Mohammad Ali Mowjidi, the governor of the Central Bank, businessmen, economy ministers, experts and clergy members have been invited to attend.

Mr. Mowjidi, who is known to be concerned at the bumpy and ill-conceived nationalisation of large sections of the economy and says which was not consulted, has threatened to resign if the measures agreed at the conference are not implemented.

Mr. Mowjidi said the conference would evaluate Iran's credit, banking and monetary policy. High on the agenda is expected to be the need to restore business confidence as well as a new international parity for the rial.

Meanwhile, in a separate development, a senior Iranian official has reported that the currency talks with the former Western Oil Consortium operating in Iran have run into difficulties.

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Big drop likely in Italy's current account surplus

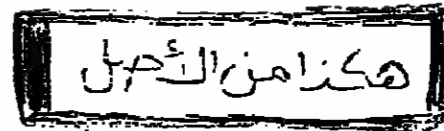
By Paul Betts in Rome

THERE ARE signs that Italy's substantial current account payments surplus could shortly come under pressure as a result of rising oil prices and a deterioration in the terms of trade. Last year's current account surplus of over £5,000bn (£2.64bn) is likely to be more than halved, on present trends.

Italy is estimated to have to pay £4,000bn more for oil during the next 12 months. Exports appear to have been hit by flagging world demand, uncertainties over future domestic consumption and the protracted industrial unrest during the recent renegotiation of a series of national labour contracts.

Moreover, inflation is continuing to accelerate and latest estimates indicate that the annual rate could reach 18 per cent at the end of the year, compared with an original target of about 12 per cent.

According to the national economics institute, ISTAT, there are also indications that the strong recovery of industrial production at the end of last year and in the first months of this year is beginning to flag.



# New threat to Janata Party

BY K. K. SHARMA IN NEW DELHI

THE POLITICAL changes in India, which have brought into power a coalition government led by Mr. Charan Singh of the newly-formed Janata (S), are now having their impact on the States ruled by the Janata Party.

The party rules six States in the northern Hindi-speaking belt. With the formation of Mr. Charan Singh's new Janata (S), their Governments are threatened, since many legislators are expected to flock to the Prime Minister's party.

The immediate threat is to the Janata Ministry in the northern State of Haryana, where a protégé of Mr. Charan Singh was recently replaced. Changes are also expected in Uttar Pradesh and Rajasthan, where the Janata Party is breaking up.

This has led to the curious

position that both the Janata Party and the new Janata (S) are seeking the support of Mrs. Indira Gandhi's Congress (I) faction.

They are doing so in New Delhi—the Janata in order to topple the new Government and the Janata (S) to survive—and are doing much the same in the States, although Mrs. Gandhi's following there is limited.

In the turbulent State of Bihar, Mrs. Gandhi prevented the Janata Government from being toppled by asking her followers to support it in a confidence vote.

She did this because she does not want the stigma of removing the Harijan (untouchable) chief Minister in Bihar. Another reason is that her emissaries are holding talks with Mr. Jagjan Ram, the Harijan leader, now

leader of the Opposition in Parliament.

Mr. Ram has been elected leader of the Janata Parliamentary Party in place of Mr. Morarji Desai, who has announced his retirement from public life.

Mr. Ram insists that the Charan Singh coalition is in a minority and that he will be able to prove this when Parliament meets in the third week of August.

But to achieve this he needs the support of Mrs. Gandhi. Overtures to her made by Mr. Ram have been received surprisingly well. The reason is the growing tension between Mr. Charan Singh's Janata (S) and Mrs. Gandhi and her supporters in Parliament.

Mrs. Gandhi is visibly annoyed at the inclusion in Mr. Charan Singh's Cabinet of Congress Ministers with whom

she has quarrelled. Mr. Charan Singh has appointed as his Law Minister Mr. H. R. Khanna, a former Judge of the Supreme Court, who was passed over for the post of Chief Justice by Mrs. Gandhi.

She has taken this to mean that Mr. Charan Singh plans to press ahead with cases against herself, her son and his associates.

This is probably a correct assessment, since Mr. Charan Singh has indicated that he does not intend to permit Mrs. Gandhi to dictate terms to him. Rather than wait for her challenge, he has decided to call the cards from the start.

The attitude of both increases the prospects of factional manoeuvring and adds to instability, both in New Delhi and in the States.

Editorial comment, Page 16

# Japanese seek cut in deficit spending

By Richard Hanson in Tokyo

THE JAPANESE Ministry of Finance (MOF) is seeking to hold the increase to appropriation requests for next fiscal year's national budget to an austere 10 per cent to help to reduce deficit spending by the Government, according to a draft compilation plan submitted to the Cabinet yesterday.

The plan would limit the increase in fiscal 1980, starting March 31 that year, to about 9.8 per cent over the fiscal 1979 budget. The fiscal 1979 rise was 13.8 per cent, compared with 14.6 per cent for fiscal 1978.

This year's 38,500bn general account budget depends nearly 40 per cent on financing through issues of national bonds, which has thrown the domestic bond market into disarray.

The Finance Minister, Mr. Ipppei Kaeko, told the Cabinet that no increase will be allowed in administrative expenses. Rises in outlays for policy projects will be limited to 10 per cent, but spending to cover foreign aid will be allowed to increase by more to meet Japan's promise to boost official development aid.

Outlays on energy development will also be exempted. Work on the budget has begun rather early this year. Various Government ministries and agencies are expected to submit requests for appropriations for the next year by the end of next month. It is the first time in nearly two decades that the Finance Ministry has attempted to limit the increase to below 10 per cent.

# FIGHTING CONTINUES IN AFGHANISTAN

## Russian aid vital to régime

BY SIMON HENDERSON IN ISLAMABAD

CONSTANT FIGHTING on the Pakistan-Afghanistan border, so much a part of life in Kipling's time between the British Army and local tribesmen, continues today.

Except that now Russian officers advise the army of Afghan President Nur Mohammed Taraki, who are falling to bullets aimed by Muslim tribesmen. And instead of jezails (muskets) the tribesmen are using old British Army 303 rifles, or increasingly frequently, modern Russian AK47 assault rifles.

The fighting, which began soon after the coup that overthrew President Daoud in April 1978, has escalated in the past few months so that most areas of the country are affected. In the past week alone the rebels have cut the main road from Kabul to the Pakistan border in Islamabad three times.

It is almost a stalemate. Conservative tribesmen, annoyed by Taraki's reforms in education and agriculture and his links with the "godless" Russians, control the country at night, right up to the outskirts of the main towns. The government forces, bolstered by 4,000 Russian advisers, rule during the day, even though several garrisons in the eastern provinces are effectively cut off except by helicopter or armoured column.

Russia has long tried to assert influence over Afghanistan. There were Russian advisers even in Daoud's day, but Russia, so the Pakistanis believe, is now trying to take advantage of Taraki's left wing Khalq Party rule to push south for a port on the Indian ocean.

With the post-revolutionary chaos in Iran, Pakistan sees itself as the next domino to fall. It is particularly scared of the prospect of Russian-backed Afghan attempts to preach secession in the minority provinces of Baluchistan. The West, annoyed by Pakistan's barely concealed efforts to make a nuclear bomb, is not, in the opinion of Islamabad, doing enough to help.

Pakistan is left playing a cautious game. More than 120,000 Afghan refugees from the fighting live in Pakistan's border areas. The total cost is high—\$20 a head each month for food and tents, more than a poor country like Pakistan can afford.

The danger is that the Afghan army will take action against rebel camps in Pakistan. Already there have been incidents of shelling and strafing. Pakistan officials say they have kept most of their own tribesmen out of the fighting and they disarm the refugees as they come over. But traditionally most men in the north-west frontier province are armed, so tight control is impossible.

In the provincial capital, Peshawar, rebel groups have offices complete with their own armed guards. But they are kept under close surveillance, sometimes amounting to house arrest. The lack of unity of the groups is their greatest weakness. The actual fighting is done mainly by the different tribal groups.

The victories against the Afghan army have been significant but not mauling. Convoys have not been destroyed, and the occasional helicopter shot down. So many AK47 rifles have been captured that the black market price in Pakistan has fallen from \$5,000 each to under \$1,000.

But militarily the Kabul régime is holding on. Russian-supplied Mi-24 helicopter gunships are in action regularly. Napalm has been used at least once on a tribal camp.

Diplomatic reports from Kabul now indicate that the Russians may be trying to avoid further political embarrassment by encouraging a change in Chahar Party leadership. The 62-year-old Taraki might be safe as he is a father figure to the nation and to remove him would be to discredit himself completely. But Hafizullah Amin, the Foreign Minister and described as "Taraki's hatchetman," might be dispensable.



The Russians have some leeway. Elite groups in the military remain loyal to the régime, particularly the armoured corps. Also, even if the tribes were to unite and succeed in overthrowing the régime completely, any new government would still have to deal closely with Moscow, a fact of life which even the rebels recognise. Moscow would never tolerate an Islamic régime on Iranian lines to establish itself in Afghanistan, where the strategic stakes are so great.

So far there has been no recognisable external aid to the rebels. They have had to rely on private contributions and on money into the international drugs trade emanating from the area's vast crop of opium poppies. But confrontation with the Arab Gulf states and Saudi Arabia, worried by the tightening Soviet noose on the straits of Hormuz, to act more openly.

# Sithole party ends boycott of Parliament

SALISBURY — Zimbabwe Rhodesia's main internal black opposition party today announced that it was ending its boycott of Parliament.

The Rev. Ndadabingi Sithole told a news conference that his Zimbabwe African National Union (ZANU) faction was to drop the protest boycott it began immediately after the General Election in April brought his rival, Prime Minister Abel Muzorewa, to power.

Zanu-Sithole cold-shouldered the bandwagon from mainly white rule alleging that Bishop Muzorewa's election victory was rigged.

Zanu-Sithole won 12 parliamentary seats in the election, cutting it to two posts in the bi-racial coalition Cabinet. But Mr. Sithole said it had not been decided whether or not to take them up.

Mr. Sithole said his party was going ahead with a petition

to be heard by the High Court on August 29, detailing alleged election irregularities and demanding that the poll be declared null and void.

But he said: "Our supporters and many people throughout the country now feel satisfied that our point on irregularities has been sufficiently made."

He supported the reform of the constitution to give blacks a more powerful say in administration, a referendum on a new constitution involving blacks and whites, and another General Election.

"People already expect another, and more conclusive, election. Because of our lack of their vigilance is bound to check other possible election machinery," he said.

Mr. Sithole's announcement followed a weekend party conference in Bulawayo.

He said there was a growing feeling in Zimbabwe Rhodesia that since the installation of a

bi-racial, black-led government on June 1 the aspirations of the African people were being betrayed.

His party had to rescue African interests now being dangerously compromised in the name of maintaining white standards, Mr. Sithole said.

The Muzorewa Government, which includes five white Ministers, was not aware of its new role, he said. It gave the impression it was an extension of the Rhodesian Front of former Prime Minister Ian Smith.

Mr. Smith is Minister without Portfolio in the Government, which Mr. Sithole described as having an African face with a white substance.

The Cabinet Portfolios of Health and Roads are being held in an acting capacity by two of the present 17 Cabinet Ministers, awaiting their taking up by Zanu-Sithole.

Mr. Sithole said it had not been decided whether Zanu would be taking up the Cabinet posts or, if they did, when this would be.

The present Cabinet includes ten members of the Prime Minister's United African National Council (UANC), five members of the Rhodesian Front and two members of the United National Federal Party (UNFP) of Chief Kayisa Ndlovu.

The UANC holds 44 parliamentary seats, the RF 28, Zanu-Sithole 12 and the UNFP nine. The remaining seven seats are held by the Zimbabwe Democratic Party of veteran nationalist Mr. James Chikerema, who split with the UANC in June, alleging it was being run by a "tribal mafia."

# Hong Kong money supply soars

BY PHILIP BOWRING IN HONG KONG

HONG KONG's money supply according to the broadly-defined M2 indicator rose a further 2.9 per cent in June, with domestic loans and advances up by 2.8 per cent, compared with May.

The Government purports to see in the figures a slackening in new credit creation, but it is now widely believed that the situation is hopelessly out of control.

Ten months ago Mr. Phillip Haddon-Cave, Financial Secretary, warned of the dangerous de-stabilising impact of the high rate of credit growth then pre-

vailing—more than 40 per cent. Despite speeches and warnings of Government action unless the banks reined in their lending growth, the rate of increase has barely slackened. On a 12-month basis, advances are up 46 per cent, and on the latest month-to-month basis, up about 49 per cent.

Loans in Hong Kong have doubled in only 26 months, with real GDP growth this year likely to be in the single figures. Continuing rapid growth in credit is likely to mean continuing double-digit inflation and the

weakening of an already weak currency.

The trade-weighted index of the Hong Kong dollar is now at an index level of 88, nearly 25 per cent below the high reached two-and-a-half years ago.

The attitude towards credit creation may explain the recent upsurge in the stock market. The Hang Seng index lost 19 points yesterday, but has still gained 65 points this month despite the growing likelihood of a U.S. recession which would have a direct impact on Hong Kong.

# Peking attacks the 'high life'

REFORM of the Chinese Communist Party's cadre system—the culmination of months of protest against leaders who buy luxuries and seek privileges for themselves and their families—has been urged by Hu Yaobang, Third Secretary of the party's Central Commission for Inspection Discipline, AP reports from Peking.

Regulations must be drawn up at once to enforce discipline, overcome factionalism and safeguard unity, Hu declared. The new rules should include criteria for the party's internal political life standards for the living conditions of leading cadres, concrete stipulations for the conscientious practice of democracy, and the rights and duties of party members.

# New Australia 'strike'

Minor indications of liquid hydrocarbons have been encountered in the Bruce No. 1 Well off Western Australia, Stirling Petroleum said yesterday. Reuter reports from Perth. A rig is preparing to drill to a depth of 2,800 ft off Port Hedland.

# Boat people search

Ship of the U.S. Seventh Fleet which last week rescued 65 Vietnamese refugees from the South China Sea, will make a similar sweep in the opposite direction at the end of the week, Reuter reports from Manila. The task force, headed by the carrier Kirtzhawk, is now at Pattaya, Thailand.

# N. Korea accused

The U.S. Command accused North Korea yesterday of continued infiltration of "hostile forces" into South Korea, by sending another armed spy boat deep into South Korean waters recently, AP reports from Panmunjon. Maj. Gen. Han Jikyoung, chief Pyongyang delegate, flatly rejected the charge as a "fabrication" and claimed that Pyongyang had nothing to do with the alleged incident.

# China's new laws stress rights of the individual

BY COLINA MacDOUGALL

AFTER 33 years during which the rule of law was unofficially suspended, China's National People's Congress early last month promulgated new legislation.

Of the seven laws passed, one concerns joint ventures with foreigners and two are constitutional matters. The remaining four, however, relate directly to the rights of individuals in criminal and judicial matters. They represent a more equitable society during the powers of public security officials and party, who until now have been able to enforce arbitrary and personal judgments.

The new system revises earlier legislation set up in 1979. This formal legal system has three components: the courts, the police (the public security administration) and the procuratorate.

It functioned up to the cultural revolution but was destroyed in the violence and was not restored. Under the 1975 constitution, the procuratorate was placed under the public security administration, but last year the National Congress re-established it independently, as a forerunner to the new system.

In the 1950s the legal system operated alongside the formal system of justice applying the

party, which often had the right of investigation and decision. Since the cultural revolution this trend has increased, with the public security administration, if it functioned at all, doing so in secret and without the courts while the party made its own judgments and awarded its own punishments.

Few, if any, bad anything approaching a fair trial for offences such as "taking the capitalist road" for which the sentence called for re-education during the cultural revolution was despatch to the countryside accompanied by beatings, often ending in death.

The rule of law is such a foreign concept to the Chinese of today that so far bafflement is the main reaction. Peng Zhen, once a close associate of Mao but himself a victim of political judgement in the cultural revolution and rehabilitated last December, last week had to explain to a legal gathering that the final authority in judicial matters does not rest with the law, not the party.

Perhaps ominously he added that party committees should "examine and supervise" the work of the courts and procuratorates.

Nevertheless, the present leadership obviously recognises the need to have some check on the party or it would not have revived the legal system at all.

# Loan problems for Asia

BY BRIJ KHANDARIA IN GENEVA

ASIA'S developing countries are running into increasing difficulties in their attempts to obtain loans on favourable terms from foreign governments and banks, according to a United Nations report.

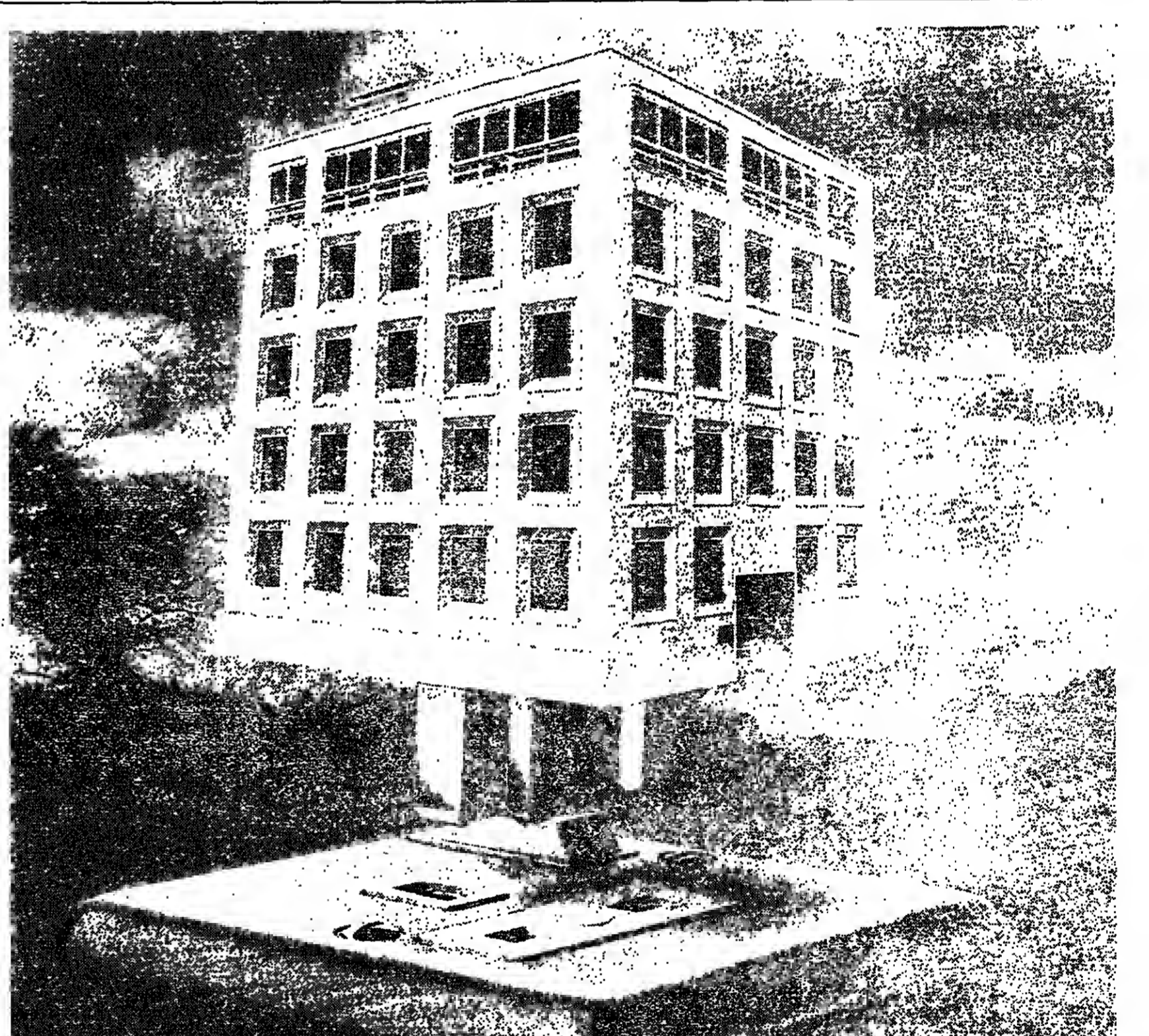
In overall terms, the share of private banking, though has increased, but the developing nations are less successful in obtaining loans on concessional terms.

The report, presented to the UN Economic and Social Council annual session in Geneva, summarises economic conditions and social conditions in Asian countries. Concessional terms are not offered to their loan because of their low credit ratings, the report says among the worst-hit countries those

in the Indo-Chinese peninsula where continuing conflict and political instability are hampering economic performance as well as regional co-operation.

The Far Eastern countries registered high industrial and economic growth rates, but their more successful manufacturing sectors such as textiles and clothing, footwear, steel shipbuilding and petrochemicals are now jeopardised by increasing protectionist barriers raised by their better-industrialised customers.

The South Asian countries gave the most disappointing economic performance in both the food and industrial sectors. The Association of South-East Asian Nations (ASEAN) is emerging as an increasingly important force in the Indo-Chinese area.



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Doubts thrown on treaty's ratification

Kissinger SALT backing hedged with reservations

BY JUREK MARTIN, U.S. EDITOR, IN WASHINGTON

Dr. HENRY KISSINGER, the former Secretary of State, yesterday issued an endorsement of the Strategic Arms Limitation Agreement with the Soviet Union...

Dr. Kissinger had given a pretty fair indication of his thinking on SALT in a long article he wrote for the Economist earlier this year. Since then, a number of other influential senators...

In effect, Dr. Kissinger proposed that SALT should be approved only if the Administration and Congress together produced a major defence spending programme to rectify the threatened military imbalance with the Soviet Union.

Dr. Kissinger returned to this theme yesterday in arguing that SALT cannot be considered in isolation since that would risk misleading the Soviet Union. "Moscow cannot have it both ways," he said.

His testimony before the Senate Foreign Relations Committee has perhaps been the most eagerly awaited to date. Controller of U.S. foreign policy for eight years in the Nixon and Ford Administrations, his advice was expected to weigh heavily on the odd senators whose votes on SALT remain an unknown quantity.

Nevertheless he did acknowledge that failure to ratify the SALT treaty would be seen as having a disruptive impact on East-West relations and added that "any fair-minded analysis" of SALT would have to conclude that it had beneficial aspects in its placing of overall ceilings on strategic missile systems.

But the nub of his objections was that any strategic arms limitation agreement tended to rally existing trends in respect to military ability—and the trend over the last decade and more, he argued, so favoured the Soviet Union at the expense of the United States that remedial action was imperative if the U.S. were not to be placed in grave danger in the years ahead.

He did not seek to lay out what weapons systems the U.S. should develop in any new programme, though he sharply disagreed with the assertion that the Carter Administration had been faced with "a choice between going ahead with the B-1 bomber and deploying the Cruise missile."

But he did recommend that the protocol which accompanies the treaty and which limits



Senator Javits (above) pressed Dr. Kissinger (below) to say how he would vote on the treaty; the answer was against.



Cruise missile deployment should not be extended beyond its scheduled 1981 expiry date; that the Senate should issue a statement that the U.S. should be entitled to any new weapons systems permitted the Soviet Union under the agreement; and that it should be made clear that the NATO allies should be entitled to whatever new technology the U.S. develops.

When one American dream comes true

By Marilyn Edd

OWNING a home has been one part of the "American dream" long denied urban apartment dwellers—until recently. Now, instead of giving the monthly cheque to a landlord, a growing number of Americans are making mortgage payments on their own flats.

From Chicago to Washington DC, San Francisco, Los Angeles and surrounding suburbs, conversions of rental flats into individually-owned flats, or condominiums, is becoming so prevalent and generating such protest that many city governments have passed or are considering restrictive legislation.

In Chicago, for instance, since the first building was converted into condominiums in 1965, about 50,000 flats out of an estimated 900,000 have disappeared from the rental rolls.

Real estate experts report about 5,000 flats were put up for sale in the first five months of this year, while 1,356 units went on the market in Washington DC during the first quarter.

Condominiums are individually-owned units within a building, where common property, such as hallways and grounds, is held by all the flat-owners who pay property taxes, mortgages and ordinary bills for their particular units, but share maintenance costs for the common territory.

The conversion craze has been dubbed "condomium" and is prompted in part by recent changes in federal income tax laws that decrease the tax liability of a building owner who sells his property and by the handsome returns accruing to developers who convert buildings into condominiums.

Demand is booming because of the growing tendency of individuals to perceive property-ownership as a risk-free investment and because flat-owners hold up equity while benefiting from federal and state tax deductions for mortgage interest payments and local property taxes.

Aside from the personal advantages, condominium supporters insist that property ownership is a boon to the cities—promoting stability, increasing property values and encouraging political involvement by people who now have a stake in the community.

But condominiums are also under attack. Citizens groups direct their criticism to the conversion process, claiming that only more affluent people benefit.

The citizens' groups also say that the sudden loss of so many rental units artificially forces up the rent of those that remain. The critics even include some landlords, who say their best tenants are moving out to become "condo-owners."

Despite the powerful real estate interests pushing the conversion process, politicians are not ignoring the strident citizen protests.

In Chicago, two City Council sub-committees are studying more than 20 ordinances that would curb the conversion craze by imposing a windfall profits tax on "condo" developers and granting tenants the right of refusal to purchase their building once it goes up for sale and arrange the conversion themselves—at a tremendous financial saving.

San Francisco's Board of Supervisors recently passed legislation limiting to 1,000 the number of annual conversions, and requiring that 40 per cent of the existing tenants express their intent to purchase their flat before the building can be converted.

Washington DC City Council passed a 90-day moratorium on conversion of high-rise housing effective from May 29.

U.S. aero engine makers bid for Air France order

BY TERRY DODSWORTH IN PARIS

A FIERCE struggle is developing within the nationalised French aerospace industry over the question of the engines to be used by Air France on the new range of A310 Airbus.

The argument has arisen after a well-publicised offer by Pratt and Whitney, the U.S. aero-engine manufacturer, to supply Air France with its JT9D-7R engines at what looks like bargain basement prices.

While Air France itself seems well-disposed towards the deal, the State-owned SNECMA engine manufacturing group and General Electric of the U.S. are anxious to keep their monopoly of the jointly developed CF6-80 engine, which has been fitted to almost all Airbus so far.

Pratt and Whitney's offer clearly results from the growing

success of the Airbus, which has helped General Electric, its large U.S. rival in the world aero-engine business, because of its design and development links with SNECMA.

In order to win a position on the French aircraft, Pratt and Whitney has offered:

- 1. To modernise free of charge its own engines on Air France's 17 Boeing 747s.
2. To switch its engine overhaul and service centre from Hamburg in West Germany to France.
3. To sub-contract up to 30 per cent of the value of all future sales of JT9D for Airbus worldwide.

The final choice for Air France will probably be heavily influenced by the Government,

which will have a delicate decision to make between the different national interests.

There are clear arguments in favour of selecting more than one supplier for the national airline, especially when SNECMA is so closely allied with an American company which now has a tight grasp through this link on French civil aviation.

On the other hand, SNECMA is running into a period of big export earnings through the General Electric connection, following the sudden success of the CFM56 unit.

The Airbus Industrie, owned by Aerospatiale, the nationalised aerospace manufacturer, the choice is more academic. But it is pointed out that the company's sales are helped by having a variety of engines on offer.

KWU keeps Iran options open

BY ROGER BOYES IN BONN

KRAFTWERK UNION has announced that it has formally terminated its contract to build two nuclear reactors for Iran at the Gulf port of Bushire, but the West German power engineering concern said it is "theoretically" prepared to negotiate a new contract over the suspended project.

This was disclosed yesterday by Herr Norbert Schmitt, head of KWU's Iranian operations. But clearly the chances of an imminent new agreement are extremely slim, following the formal termination of the contract. The Iranian authorities have denounced the \$6.8bn Bushire project as uneconomical and have said that the original contract, signed with the former Shah's officials, was over-priced and invalid.

The Iranian doubts led to the stopping of all construction work in January. KWU is flying

some 100 of its personnel back to West Germany today but is leaving a 20-man liaison bureau in Iran. Should the Iranians change their views on Bushire, the bureau could then play a role in new negotiations.

In the meantime it may advise on the care and maintenance of the power stations, which are about 80 per cent complete.

The maintenance—now completely in the hands of Iranian authorities—has been one of the major concerns of KWU in recent weeks. The West German company believes that a power plant so close to completion needs highly skilled technicians to look after it, otherwise it will deteriorate rapidly and make the resumption of work correspondingly difficult.

Greek plant expansion

BY OUR ATHENS CORRESPONDENT

A CONSORTIUM consisting of Udeh of West Germany and the Greek companies of Archirodon and Elmece has been awarded a \$38m contract for the expansion of the installations of Phosphoric Fertilisers Industry plant in northern Greece.

The expansion will be largely financed by a DM 53m European grant from the Commercial Bank of Greece by Deutsche Bank and Bayerische Verleins-

bank. The loan will be repaid in 12 years at an interest rate based on the LIBOR.

Expansion of the plant will double annual production capacity to 700,000 tons and, at the same time, widen the range of fertilisers produced. The expansion is expected to be completed early in 1982, and should have Greece an estimated \$20m a year more spent on imports of fertilisers.

Tate and Lyle may back Fiji distillery

By Dai Hayward in Wellington

TATE AND LYLE, the sugar refining company, is reported to have offered to back a £1.6m distillery in Fiji. Plans for a distillery to be based in Lautoka, the centre of Fiji's sugar cane industry, are now being considered.

Tate and Lyle already have a large stake in the Fiji sugar industry, importing 175,000 tonnes of sugar each year. Lord Jellicoe, the chairman of Tate and Lyle, told Fiji sugar growers the company would like to "widen and deepen" its involvement in the Fiji economy.

Two sites are being considered for the proposed distillery, and it is hoped it could be in operation, producing gin, vodka and rum, by August next year.

India to modernise car industry with foreign help

BY R. C. MURTHY IN BOMBAY

THE INDIAN automobile industry has been given the go-ahead by the Government to modernise with the help of foreign know-how.

It is hoped foreign collaboration will achieve savings in fuel consumption.

The Government wants these cars, some of which were designed 20 years ago, to be replaced with light-weight, fuel-efficient vehicles. There are three automobile companies in the field for foreign collaboration. Bombay based Premier Automobiles is negotiating with Fiat of Italy and Peugeot of France for expertise to replace its Pradmi. The Pradmi was originally designed to Fiat 1100 specifications. The State-owned Hindustan

Motors (HIM) proposes to upgrade the engines of its trucks and cars with British help. Of the total Rs160m (£8m) modernisation programme, Rs100m will be spent on HIM's truck project, Vauxhall will help upgrade the Hindustan (originally Bedford) trucks to enable them to lift a payload of 7.5 tonnes plus 25 per cent extra load permissible under local regulations.

MAN of West Germany is entering into technical and financial collaboration with Escorts of Delhi for modern diesel engine production.

ECORTS-MAN, a new joint venture to be set up for this purpose will make stationary and automotive diesel engines of 100-850 hp.

Leading indicators fall 0.1%

BY JUREK MARTIN

THE U.S. leading economic indicators, which are designed to point to future trends in the economy, fell by a slight 0.1 per cent last month, according to preliminary estimates by the Commerce Department.

This follows a modest 0.3 per cent advance in the index in May and the sharp 2.1 per cent drop in April. It means that that measurement now stands at 1.1 per cent below the level of June last year—evidence of the downturn in economic activity.

A certain amount of statistical casuistry is involved in interpreting the index. Classically, if it moves up or down for three months in a row, it is supposed to portend a shift in economic fortunes. This has not been an infallible guide, but is considered a useful rule of thumb.

So far this year, the index has declined in three of the six months, but not consecutively.

On the other hand, measured on a quarterly basis, the index has now fallen for two quarters in a row—by 0.2 per cent in the first three months and by 1.1 per cent in the April-June period. The last time this happened was in the last quarter of 1974 and the first quarter of 1975, when the economy was indeed moving into a severe recession.

It is, of course, widely believed that the U.S. is already in a recession, given the 3 per cent plus decline in gross national product in the second quarter of this year. However, Mr. Paul Volcker, chairman-designate of the Federal Reserve Board, told Congress only on Monday that he did not necessarily concur with the prevailing view that a recession was already under way.

Mr. Volcker's purpose was clearly to reinforce the image he already possesses as an apostle of monetary discipline and as a consequently staunch fighter against inflation. He warned that interest rates might have to rise further as part of an even tighter monetary policy if inflation were to be reined in.

But his assertions clearly point up a potential conflict between the economically and politically desirable. If the recession were to turn out to be deeper than currently feared by the Administration, the President may feel impelled by political and social considerations to move to stimulate the economy towards the end of the year—perhaps at a heavy cost to the fight against inflation.

Police grenade kills Brazil striker

BY DIANA SMITH IN RIO DE JANEIRO

A STRIKING building worker was killed by a police grenade, and several dozen workers, firemen and policemen injured in the Brazilian city of Belo Horizonte, capital of Minas Gerais state. A fireman was also reported killed.

After negotiations for wage increases dragged on, 15,000 of the union's 80,000 members called a strike on Sunday night, and a rally on Monday morning. Firemen were called to extinguish a blaze in a building apparently turned over and set on fire by strikers and violence

seek compensation for the death and injuries of 15 members.

Strikes by industrial or white-collar workers have been common since President Figueiredo took office in March. Generally, they have been peaceful, although clashes occurred in Sao Paulo state. The Belo Horizonte violence is the first to involve loss of life.

The new Government, bent on presenting a more humane face than its predecessors, and on gradually softening Brazil's draconian labour laws, may have trouble keeping the temperature cool in industrial disputes until the police change their attitude.

San Francisco's Board of Supervisors recently passed legislation limiting to 1,000 the number of annual conversions, and requiring that 40 per cent of the existing tenants express their intent to purchase their flat before the building can be converted.

Washington DC City Council passed a 90-day moratorium on conversion of high-rise housing effective from May 29.

During this time, an 11-person commission is developing recommendations on such issues as incentives to build rental housing and the creation of a revolving loan fund for low and moderate income earners who want to buy condominiums.

Condominiums are often expensive. Two-bedroom units on Los Angeles' west side sell for \$125,000-\$300,000 and start at \$85,000 in Washington DC. In Chicago, most of the converted properties are high-rise buildings located in the city's fashionable neighbourhoods.

In the more desirable areas, purchasers are paying \$100 a square ft, which places many units in the category of \$100,000 and above. With mortgage interest rates hovering around 11 per cent and monthly maintenance costs for the building's common area reaching \$300, monthly condominium payments typically exceed monthly rents.

Despite the price, demand remains strong. As communities rush to convert, prices of existing "condos" are climbing still higher. Some buyers are as dismayed as the disease.

Metin Munir reports on the pipeline built to symbolise friendship between Ankara and Baghdad

Oil flows but future remains troubled

ONLY THE presence of the Mediterranean lends any charm to the oil discharge station that marks the terminus of the 590-mile Iraqi-Turkish crude oil pipeline.

In the arid heat the line-between sea and sky disappears, and tankers are only visible when they approach close to the loading jetty. There is not a tree in sight for trees are regarded as a fire hazard, and the pipeline's management is looking for sheep to crop the scant grass that remains—sheep do not smoke, but workers mowing the grass might.

But such problems are incidental to the overall work of Iraqi and Turkish technical staff based here, who are finally beginning to see the \$800m pipeline begin to carry something nearer its full annual capacity of 25m tonnes.

In 1978 it only carried 13.3m tonnes, but in the first six months of this year 14.8m tonnes were carried.

Built to symbolise the friendship between Ankara and Baghdad, the pipeline commenced operating in mid-1977, but it has still been a bone of contention in the region. There were immediate problems over the quantity of oil Turkey would be allowed to draw from it, and the prices that would be charged. It has also experienced at least one explosion, the result of an apparent sabotage attempt.

In Turkey's more affluent days when the pipeline was conceived there were plans to establish a joint Iraqi-Turkish refinery—a petrochemical complex at the terminal in Dortyol. These have now been shelved, though Turkey is planning to build a 270-mile spur pipeline

from Dortyol to Kirikkale near Ankara.

The Romanians are building a refinery with an annual capacity of 5m tonnes at Kirikkale. However, even if the fast welding techniques used on the Iraqi-Turkish pipeline are applied, it is questionable whether the spur will be ready at the same time as the refinery—about two years. The tender documents are being prepared but will not be sent out until Ankara is sure it can fund the foreign exchange necessary.

Officials at BOTAS, the subsidiary of the Turkish Petroleum Company (TPAO) which operates the pipeline, explain that several factors prevent the pipeline from attaining full capacity. The most important is power shortages, which sometimes occur despite the fact the Turkish Electricity Authority (TEK) will often deprive local communities of electricity in order to keep the pipeline supplied with power.

The automatic operating system has also had its failures, while problems have sometimes arisen over the Iraqi marketing practices.

At present the Iraqi give Turkey monthly sales lists specifying the names of the vessels to be loaded. But before loading can take place the Turks must have the approval of Iraqi technicians stationed here. Until a few months ago Turkish ships also often left empty handed because of frequent changes in the monthly lists.

The tanker terminal can take ships of between 30,000 and 300,000 dwt. On one recent weekend a Turkish tanker was being loaded while another Turkish tanker and a Japanese and a Greek vessel were anchored offshore.



Under the agreement between the two countries Turkey receives a free of U.S.\$8.9 cents per barrel of throughput and is hoping to make about \$55m this year from the pipeline. Iraq has also pledged to allow Turkey 10m tonnes of crude per year until the end of 1979, 12m tonnes until 1982 and 14m tonnes thereafter.

This year, however, Turkey is only expected to take 6.5m tonnes from the pipeline. Turkey's shortage of foreign exchange has meant that its debts to Iraq have built up to, at one point, \$300m.

The problems of foreign exchange, have not only meant that there are now long queues for petrol and diesel fuel throughout the country, but also that Turkey is unable to meet some of its longer-term contracts. It has thus been frequently driven into buying on the spot market—meaning that such foreign exchange as there is does not go a long way.

There are still doubts about whether Iraq's rapprochement with Syria will affect the Iraqi pipeline. Turkish officials say that Iraq is committed to paying fees for putting through 15m tonnes annually; they are confident that throughput will reach 30m tonnes this year.

Nigeria may sell oil to Australia

By Mark Webster in Lagos

NIGERIA has indicated its willingness to sell oil directly to Australia, if the Australian Government needed it. Mr. Malcolm Fraser, the Prime Minister, said in Lagos.

Mr. Fraser, on a four-day official visit to Nigeria, also said that a trade agreement between the two countries was "much closer" after one of the major obstacles to such a deal had been removed.

He said Nigeria had dropped its insistence on a balancing clause which would have ensured that trade between the two countries would be almost exactly equal. Mr. Fraser said he explained that such a clause would be impractical between two trading nations.

But he added that other problems remained and that it was likely that another special trade mission would come to Nigeria in order to conclude such a deal. Outstanding problems are believed to include an end-user clause, which Nigeria wants in order to prevent goods being re-exported to countries such as South Africa and Zimbabwe Rhodesia.

The Nigerian willingness to consider oil deals with Australia is considered important by observers here, because of the general shift in Nigerian sales policy away from sales through operating companies already in the country to third-party customers.

Mr. Fraser said that if such sales took place it would probably be on a Government-to-Government basis. But he said it would only involve marginal quantities of oil as Australia already produced a light crude similar in quality to Nigeria's own.

Australia imports around 30 per cent of its crude oil, but most of that is heavy crude or gas. Mr. Fraser said the issue of trade-off deals involving a third party had not been raised. Government officials explained that there had been a possibility of buying Nigerian light crude and then exchanging it for heavy crude through another country.

But Mr. Fraser said that at present, the decision on whether or not a deal would be done with Nigeria rested on an inquiry being carried out by all the oil-producing countries to find out where Australia would get the best deal.

Oil experts here point out that transport costs from Nigeria to Australia would make it unlikely that such an arrangement with Nigeria would prove profitable.

On the trade issue Mr. Fraser said that more talks would probably be necessary. Australian trade with Nigeria has sunk to an estimated \$2m (£1m) a year since Nigeria introduced import restrictions which cut the supplies of Australian beef allowed into the country.

He said that other matters discussed included the common fund and the importance of achieving agreements on commodity stabilisation. They had also agreed that if the U.S. could be urged to join the International Sugar Agreement, the European Economic Community would probably follow suit.

هكذا من الأصل

# Staff cuts may hit savings, bonds

By EAMONN FINGLETON

ONE OF the main services of the Department of National Savings may have to be phased out if the Government goes ahead with a proposal to cut staff spending by 10 per cent, it was stated last night.

The Department said that Mr. Nigel Lawson, Financial Secretary to the Treasury, had explained the implications of the proposed cuts to staff representatives last week. But no decision on the cuts will be made until the autumn.

The statement followed reports yesterday that the Department's successful Premium Bonds operation could be hit by Government efforts to reduce Civil Service manning levels.

Yesterday's statement confirmed that Mr. Lawson had mentioned Premium Bonds as

one of three major areas which might be affected. The other areas were the ordinary account at the National Savings Bank and National Savings Certificates.

Mr. Lawson had said that only one of these areas would be affected if the Government went to achieve a cut of 10 per cent in staff spending by April, 1982. More services might be affected if larger cuts were implemented.

The Department said: "The word 'affected' was used since it was envisaged that should it be decided that any Department of National Savings services should contribute to the overall reduction."

This would probably be done by discontinuing the intake of new deposits or purchases, but existing investments would continue to be serviced.

# More fraud officers considered

By John Elliott, Industrial Editor

THE DEPARTMENT OF Employment is considering increasing the number of fraud officers it employs in an attempt to cut down on the payment of unemployment benefit to people who have jobs.

This emerged yesterday after Mr. David Mitchell, a junior Industry Department Minister, told the Confederation of British Industry's small firms council that the Government was looking into what could be done in the case of people who were moonlighting and drawing unemployment pay at the same time.

At present the Employment Department employs 300 fraud officers. The cost of an increase would be covered out of £7m a year savings that the Department will make from September when it starts paying unemployment benefit fortnightly instead of weekly.

Eventually the Department hopes to more than cover the cost of the fraud officers by cutting down on the £1.5bn a year it spends on unemployment pay.

The Department is also aiming to curb abuses of unemployment and other benefits.

# Trade report censures four

BY JOHN MOORE

DEPARTMENT OF Trade Inspectors inquiring into the ownership and affairs of Ashbourne Investments, a small quoted company with financial and industrial interests, have censured the conduct of four individuals.

In addition, the investigation has disclosed a number of areas for which the present law and practice provide inadequate protection against abuse.

The details are in a Department of Trade report published yesterday after an investigation which lasted nearly four years.

The inspectors, led by Mr. Robin Auld, QC, say they are concerned about the lack of adequate safeguards for unsecured loan stockholders and the absence of clear standards in relation to "window-dressing" of accounts.

The inspectors regarded as particularly serious the attitude of Mr. Simon Raynaud, an executive director of Ashbourne, to the breach of the loan stock trust deed of the company in the six months before a consortium gained control of Ashbourne.

They regard as serious the abuse by Mr. Stephen Barry, Mr. Stephen Ross and Mr. Lionel Casper of their management relation to a share deal involving shares of Armour Trust.

bank acquired by Ashbourne in 1987. Mr. Stephen Barry is held primarily responsible for the "window dressing" which he used to conceal the breach of the loan stock trust deed and the extent of Ashbourne's reliance on support from Schwab.

The report covers the period between 1973 and 1978 and the events surrounding a proposed bid by a consortium headed by Crest International Securities.

The founders of the consortium were Mr. Lionel Casper, the chairman of Crest, Mr. Stephen Barry, the chairman of Corporate, and Mr. Bernard Glazer, a rancher and property owner in South Africa.

Their intention was to gain management control of Ashbourne, merge it with their own companies and set out on a career of "company conquest."

By the end of November 1978 the consortium had acquired 23.26 per cent of the issued share capital of Ashbourne. It proposed a bid and instructed merchant bank William Brandt's a member of the Grindlays Banking group, to act for it.

By then Mr. Casper and Mr. Barry had already stretched their respective companies' finances to obtain the bid. They sought board representation but it was denied.

holding to 43.15 per cent of Ashbourne. It then became bound under the City Code on Takeovers and Mergers to make within reasonable time an offer to buy the remaining shares in the company.

Ashbourne sold the shares to the consortium after an assurance given by William Brandt's that the consortium had sufficient funds available to meet its obligations.

In anticipation of the bid, four representatives of the consortium — Mr. Casper, Mr. Ross, Mr. Barry, and Mr. Brian Simmons — were appointed to the Ashbourne board.

No bid materialised. In their observations on the deal, the inspectors say that one of the most important objects of the City Code is to ensure that all shareholders of a company about to be taken over receive equal treatment from the bidder. In this instance, all the shareholders of Ashbourne did not receive equal treatment.

The takeover panel was unable to enforce the City Code, first because the consortium directors resorted to litigation to enable the consortium to evade its obligation to bid, and in the end, because the financial arrangements for the announced bid failed.

The inspectors observe that Mr. Philip Ralph, then a director and head of the corporate finance side of William Brandt's, was at fault in failing to construct a clear and comprehensive underwriting agree-

ment for the bid at the outset. The inspectors conclude that the consortium directors took steps to improve the liquidity of the Ashbourne group, principally by the realisation of some assets and by obtaining repayment of certain loans made by E. S. Schwab.

However, their brief stewardship of the company and subsequent control were highly damaging to it, notably by the costly disputes in which they involved the company in trying to retain control of it without complying with the obligation to bid for it.

They praised Mr. Raynaud and the company's fellow non-consortium directors for undertaking the management of the company affairs under such trying conditions.

\* Ashbourne Investments Limited, Department of Trade Report, HMSO, £3.75.

# Bank sets new rules for money dealers

By James Bartholomew

THE BANK OF England issued a code of conduct for principals and brokers in the £30bn sterling money market yesterday, and a Sterling Brokers Association has been formed along the lines of the existing Foreign Exchange and Currency Deposit Brokers Association.

The code will apply to institutions such as building societies, local authorities and industrial companies which have not until now been subject to rules written by the Bank of England. The market also includes banks, brokers, pension funds and insurance companies.

There is at present £4bn in the Certificate of Deposit market, £1.5bn in the interbank market and out of the £35bn of local authority debt, about £10bn is estimated to have been funded through the money market. There are also smaller markets such as that between industrial companies and the Bank.

The Bank's code is based on existing best practice and has been written after consultation with practitioners.

The code rules that: The exchange of confidential information about third parties is forbidden.

only to a lender who seriously intends to deal.

• A principal shall not apply unfair pressure on a broker to pass on information improperly.

• Brokers must not give gifts to principals unless the heads of the principals' money market operation know about the gifts.

• Principals must exercise full control over their dealers.

• Principals must not use brokers to find out who is in the market in order to deal with them directly.

Enforcement of the code is in the Bank's hands but the sanctions open to it are not clear.

Disputes in the money market can now be referred for arbitration to a Joint Standing Committee on which principals and brokers will be represented. The committee will also advise the Bank on future amendments to the code.

The new regulatory systems which have emerged in both the sterling and foreign exchange markets is a half-way house between the self regulation which the Bank has long favoured and the governmental control common on the Continent.

# Mirror Group chairman to retire at end of year

By John Lloyd

MR. PERCY ROBERTS, 59, chairman and chief executive of Mirror Group Newspapers, is to retire at the end of the year.

Reed International, the group's parent company, has also announced major changes in its management structure.

The changes follow an announcement in May that Mirror Newspapers had abandoned an attempt to introduce computer-aided design, and came at a time when the Daily Mirror's circulation continues to fall.

the Mirror group from today. Mr. Tony Miles, editorial director of the Mirror group, becomes chairman, and Mr. Douglas Long, deputy chief executive, becomes chief executive. Both will report to Mr. Carpenter.

The deputy chairman of Reed International, Mr. G. S. Witherington, takes over direct responsibilities for Reed Building and Wall Paper Manufacturers from Sir Alex Jarrat, Reed's chairman.

The company's paper and packaging interests are brought together under Mr. D. T. Wilkins, Reed Group chairman, who now also takes on Reed Paper, the company's Canadian subsidiary.

# Record sales for main London auction houses

THE FOUR main London auction houses had record sales for the closing season, with combined net figures of £339.6m against £282.9m in 1977-78. This was a rise of 18.8 per cent.

Sotheby's had a total of £181.5m, compared with the previous £161m, an increase of 12.7 per cent. Every saleroom recorded higher figures. Last year's international total was

campaign by a major auctioneer in the UK.

Bonham's rise was 15 per cent on a turnover of £8.6m, compared with £7.5m last year. During the year a 1,300 sq ft saleroom was added to the Montpelier Galleries in Knightsbridge.

Sotheby's consignments from abroad represented 30 per cent of total sales in London. The five salerooms in England reported a total of £85.4m (£80.4m previously). One highlight of overseas sales was at Monaco on June 25-26 where the Akram Ojeh furniture fetched FFr 54.5m. The highest individual price at Monaco was FFr 7.6m for a Lotus XV ornolu-mounted marquetry corner cabinet—a world record for a piece of furniture.

On July 3-5 in London, a sale of Impressionist and Modern paintings, drawings and sculptures made £8.7m. The Paul Rosenberg collection made £3.2m on July 3 and Picasso's "La Boutique de Vin" was sold for a record £460,000.

While Impressionist, Post-Impressionist and Contemporary Art showed a healthy rise to £27m from £21.4m, the biggest jump was in furniture from £14.7m to £23.5m.

Mr. Peter Wilson, chairman of Sotheby Parke Bernet, commenting on London as a selling centre, said: "We should not forget that this position could easily be eroded, or lost, if restrictive regulations should destroy the confidence of collectors throughout the world who sell at, and buy from, Sotheby's."

# SALEROOM

By Pamela Judge

based on exchange rates taken at August 31, while this year's were struck on July 30. Without this difference the total sales would have been more than £197m; a gain of 32 per cent. Sales in North America rose to \$127m from \$112m.

For the first time, Christie's topped £100m, with £110m sales against £89.1m last year. This was an increase of 24 per cent. On a similar exchange rate calculation to Sotheby's, Christie's would show an extra £2.2m, or a rise of 38 per cent. Overseas sales increased in number to 229 against 194, in value to £42.6m against £32.1m.

At Phillips, the increase was 26 per cent—sales of slightly more than £30m against last year's £23.5m. Phillips was the most aggressive advertiser during the year. It took virtually all the Bond Street Tube station sites and ran the first television

**Stars on**

**Sunday, Monday, Tuesday**

**Wednesday, Thursday, Friday**

**Saturday**

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LONDON-KUWAIT, ABU DHABI, JEDDAH, DHAHRAN, DUBAI.

LONDON-KUWAIT, BAHRAIN, DUBAI, ABU DHABI, JEDDAH, DHAHRAN, DOHA.

LONDON-KUWAIT, ABU DHABI, DUBAI, JEDDAH, DHAHRAN.

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Sit back and enjoy our daily TriStars to the Gulf. Especially the new TriStar 500.

Fly the flag to the Gulf. It's the best programme every day of the week.

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We'll take more care of you.

Along with our TriStars, you can treat yourself to our three weekly Concorde flights to Bahrain.

Our wide-bodied 747s to Bahrain (daily to Muscat and Dubai).

A little VC ten-derness to Doha, Muscat and Dubai.

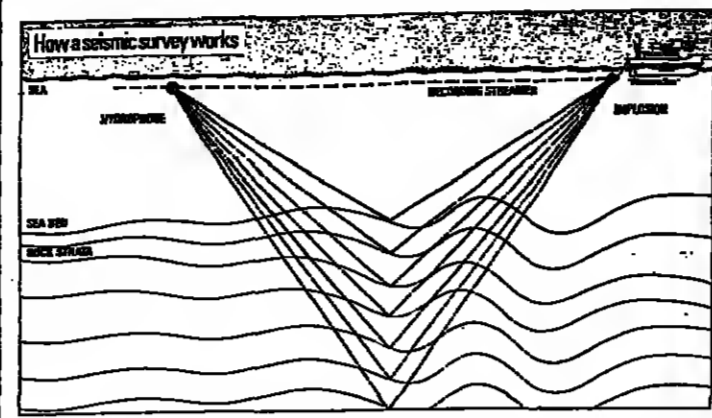
UK NEWS

Gulf plan to seek Channel oil

BY RAY DAFTER, ENERGY EDITOR

GULF OIL is to carry out a seabed survey of the English Channel to discover the area's oil and gas potential.

The survey, on behalf of 16 groups of oil companies, is scheduled to start mid-September and will take about two months to complete.



The diagram on the left shows how a seismic survey can be conducted using gasguns. In the diagram on the right, the shaded area shows the section of the Channel between Dungeness and Weymouth which will be surveyed.

At present the central and southern platforms on Ninian — one of the biggest fields in the North Sea — are producing oil at the rate of 200,000 barrels a day.

Partners in the Ninian consortium are: Chevron Petroleum (UK), British National Oil Corporation, Imperial Chemical Industries, British Petroleum Development, Ocean Exploration, Murphy Petroleum, Ranger Oil (UK), and London and Scottish Marine Oil.

Cheaper homes sought by buyers

BY MICHAEL CASSELL

FIRST-TIME house buyers now have to pay an average of £15,200 for their home, says Nationwide Building Society.

A survey by Nationwide, the country's third biggest society, shows that new owner occupiers are going for cheaper dwellings and thus paying about a third below that paid by existing home buyers.

First-time buyers are seeking older homes and more terraced houses in their search for the cheapest property.

At the bottom of the range, pre-1919 terraced houses now cost an average £11,920, although the society points out that there are considerable regional variations.

In Greater London, the most expensive region, the cheapest property category involves pre-1919 flats at an average price of £17,310.

In the East Midlands, the lowest priced region, the cheapest type is the pre-1919 terraced house selling for an average of £8,720.

About 50 per cent of first-time buyers were previously living with parents or relatives, while more than 25 per cent rented from a private landlord and 12 per cent were local authority tenants.

Mr. Leppard Williams, chief general manager of the Nationwide, said that in spite of the recent rise in house prices, about 45 per cent of his society's loans were going to first-time buyers.

They were not, therefore, being priced out of the market, but more were turning to older, terraced homes because they were cheaper, usually conveniently situated for work and offered adequate space for a couple's first home.

New factory for clothing company

SCOTTISH CLOTHING company S. Meadow expects to increase its workforce by more than a third by moving into a new factory on the Queenslie industrial estate in Glasgow.

The building, leased from the Scottish Development Agency, will enable the company to centralise its cloth cutting in one plant.

The expansion frees space at the two existing factories in Glasgow and Irvine, Ayrshire, for increased output of jeans and trousers.

Mr. Elliot Levitan, chief executive, said the company intended to expand production rapidly, creating 100 jobs at the new factory by the end of the year.

Mr. Shaw said it would be most unusual for an ex-Prime Minister to serve on such committees as this often involved investigating the work of Government departments and could accordingly have involved the investigation of a department during his premiership.

Furthermore, Sir Harold could have certain knowledge of matters under committee investigation which he would have acquired in Cabinet meetings or committees, which he would not be at liberty to disclose.

The defendants recognised that to allege that Sir Harold had neglected his duties as an MP would be wholly unjustifiable. They withdrew any such imputation and agreed to pay damages and Sir Harold's legal costs.

Sainsbury speeds up laser checkout tests

BY DAVID CHURCHILL, CONSUMER AFFAIRS CORRESPONDENT

Attack on office waste

By James McDonald

THE COST of producing one letter in an office is £5, according to a survey conducted by the Alfred Marks employment bureau among more than 1,000 secretaries and clerks.

The survey, Waste in the Office, criticises managers for bad timekeeping, spending too much time on the telephone and writing unnecessary letters. It claims that more than one-third of all commercial letters are superfluous.

Mr. Bernard Marks, of Alfred Marks, said: "Too often a secretary is regarded as a status symbol by an employer and is not properly employed."

Almost 75 per cent of survey participants claimed their time was not used effectively and that they had abilities untapped by their employers. Only 40 per cent of managers were credited with planning their day by delegating or delegating in the morning.

Replying to the survey, the British Institute of Management said entertainment was in the pursuit of business and "although managers may be late to work they work harder."

The Confederation of British Industry, said: "It is up to managers to lead the way, not only in the larger sense of the economy, but also leading their staff by personal example into higher productivity."

THE KEY Markets store will be using the specially developed IBM system and equipment. This system has also been used at Sainsbury's Crawley store experiment.

The company had already started trials of electronic checkouts without laser scanning at its Crawley store. But Sainsbury said yesterday that this experiment would be extended to include laser-scanning next year.

Sainsbury's decision to accelerate its testing programme follows the decision by Key Markets, the Fitch Lovell supermarkets chain, to start operating such a system this autumn at its superstore in Spalding, Lincolnshire.

The new electronic checkouts, already used in U.S. and European supermarkets, contain a laser beam which reads a special "bar code" printed on grocery products and automatically provides price and product information for both shoppers and store staff.

The system means that checkout operators will not have to key in prices, which often leads to mistakes. Shoppers will receive a till receipt which describes the product and gives its price.

reaction to this trial has demonstrated the acceptability of the system and the urgent need to progress towards scanning."

Sainsbury's other experiment will be carried out using NCR equipment.

Wilson wins libel action over Daily Mail article

SIR HAROLD WILSON yesterday accepted appropriate damages in settlement of his High Court libel action over a newspaper article which suggested he had neglected his duties in the 1976-77 Parliamentary Session.

He had sued Associated Newspapers Group, Mr. David English, Daily Mail editor, and Mr. Anthony Bevis, the Mail's political correspondent.

Sir Harold had complained of a Daily Mail article on April 23 last year, alleging that backbench MPs had one of the worst absenteeism records in Britain.

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and standing committees and being inactive in the Chamber.

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Furthermore, Sir Harold could have certain knowledge of matters under committee investigation which he would have acquired in Cabinet meetings or committees, which he would not be at liberty to disclose.

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OTHER MEN'S JOBS: TROPICAL FISH IMPORTER

Colour and money from foreign waters

BY PAUL CHEESERIGHT

MORIARTY IS not mean nor aggressive, but he does like to be master in his own house. He is a flamboyant lover. Like others of his ilk, he colours vividly when amorous — becomes luminous even. He dances before the object of his desire, seeking to entice her to his love-nest.

His tactics have paid off. In the last nine years or so, he has had up to ten wives. The number of his offspring is uncertain, but runs into hundreds. Such virility, and Moriarty is only 12.

But Moriarty will never find a place in the Guinness Book of Records. He is not Homo Sapiens but Pseudotropheus Tropheus, a Malawi Cichlid. He is, indeed, the first fish ever bought by Barry Myerscough, an hotelier and tropical fish breeder at Hehden Bridge, Yorkshire.

Moriarty is more of a family pet these days, but he remains at the centre of a business which is rare in the world of ornamental fish. Rare, because Mr. Myerscough breeds fish commercially as well as buying and distributing.

The industry is dominated by imports, and the tropical fish side of it is just part of a trade which also takes in cold-water fish like goldfish and garden fish. Breeding is difficult in the face of competition from places like Singapore, where overheads are low and heating problems nonexistent.

dusty leaders and managing director of Aquatic Nurseries, Hampton, Middlesex, says: "Breeding is easy, it's the growing that's the problem. You need ponds. And for ponds you need space. Ponds under glass are expensive."

There is a world of difference between Mr. Hardy's scale of operations and Mr. Myerscough's tanks. Aquatic Nurseries has 250,000 tropical fish in stock for most of the year. When coldwater fish imports are in season, its fish population rises to a million.

The Hardy fish importing and under glass are expensive. This sets it apart from the rest of the industry. Fish importing is largely in the hands of small businesses. The statistics are shadowy, but there are probably about 1,000 importers of tropical fish. They supply more than 1,200 pet shops, of which about one-third specialise in fish.

It is not known how much the nation spends on ornamental fish imports as the industry does not rate a separate category in the annual trade figures. The Pet Food Manufacturers' Association estimates that 7 per cent of British households — 1.2m — keep fish of some sort.

The hobby has been growing in popularity for the last century. It supports magazines like The Aquarist, and gives the three large pet food manufacturers sales of about £500,000 a year. Importers are always dashing to London Airport to pick up new shipments. The fish arrive in cardboard boxes like wine cases. The boxes have an internal layer of polystyrene insulation, inside which is a plastic bag containing about one-sixth water and five-sixths oxygen.

The Europe-Far East trade is highly developed. In Singapore, some brokers buy direct from the commercial breeding ponds and ship to the waiting importers. This worries the purists who prefer fish to come from their natural habitat. They argue that the Singapore fish, for example, are "man-made" and their colours are unnatural. It is said that Singapore breeders use some of the ingredients of the contraceptive pill to induce added vividness. Once the hormonal and Vitamin B complex additions to the fish's diet are stopped, the higher colouring fades.

Mr. Hardy eschews the Far East export stations, as they are called in the trade. He has built up his business by seeking out the unusual in South America and Africa. He has gained the European franchise from some American exporters — and it has all happened rapidly.

For many years he was an amateur aquarist until he turned professional in 1971. Armed with £1,500 insurance money from a car crash, the same amount from a partner, and what he calls "a little help from the bank," he went into business in a back garden.

After a few months he expanded and moved into premises subject to a compulsory purchase order. In the first two years the business lost money. Mr. Hardy bought out his partner in 1974 and never looked back. Profits, he realised, could only come if expansion was on a large scale. The fish sales led to other avenues of business, such as books, food and equipment. The selling of the man-made is less risky than the selling of fish.

the Amazon may have to travel 1,000 miles before it reaches the export station. The export packaging for the air trip to Europe may be less than expert and acclimatisation is difficult.

In business terms there is a distinct lack of product control. This explains the high but varied mark-ups on the fish as they pass down the distribution chain.

Regulations in the trade are fluid, which worries the big importers. Companies handling between 60 and 80 per cent of European imports have founded Ornamental Fish International.

The organisation has worked out a regulatory code for import stations. Working with the UN, it is embarking on a scheme to encourage, in a controlled fashion, exports from the developing world to the industrialised nations.

Moriarty and his progeny have entered the world of diplomacy. Tomorrow: Pillow stuffing.



Mr. Malcolm Hardy tends open-air ornamental fish tanks.

THE NORWEGIAN STATE AND MUNICIPAL POWER CONSORTIUM SIRA-KVINA KRAFTSELSKAP 7 1/2% Sterling/Deutsche Mark Bonds 1983

S. G. WARBURG & CO. LTD., announce that Bonds for the amount of £460,000 have been drawn for the presence of a Notary Public, for the redemption instalment due 1st September, 1979.

The numbers of the Bonds so drawn are as follows:—

Table with columns for bond numbers and values. Includes sub-sections for £500 Bonds and £100 Bonds.

Table with columns for bond numbers and values. Includes sub-sections for £500 Bonds and £100 Bonds.

On 1st September, 1979 there will become due and payable upon each Bond drawn for redemption, the principal amount thereof together with accrued interest to said date at the office of:—

S. G. WARBURG & CO. LTD., 30, Gresham Street, London, EC2P 2EB., or one of the other paying agents named on the Bonds.

Interest will cease to accrue on the Bonds called for redemption on and after 1st September, 1979 and Bonds so presented for payment must have attached all coupons maturing subsequently to that date.

£1,860,000 nominal amount will remain outstanding after 1st September, 1979.

The following Bonds, drawn for redemption on dates stated below, have not yet been presented for payment.

Table with columns for bond numbers and values. Includes sub-sections for £100 Bonds and £500 Bonds.

30, Gresham Street, London, EC2P 2EB. 1st August, 1979

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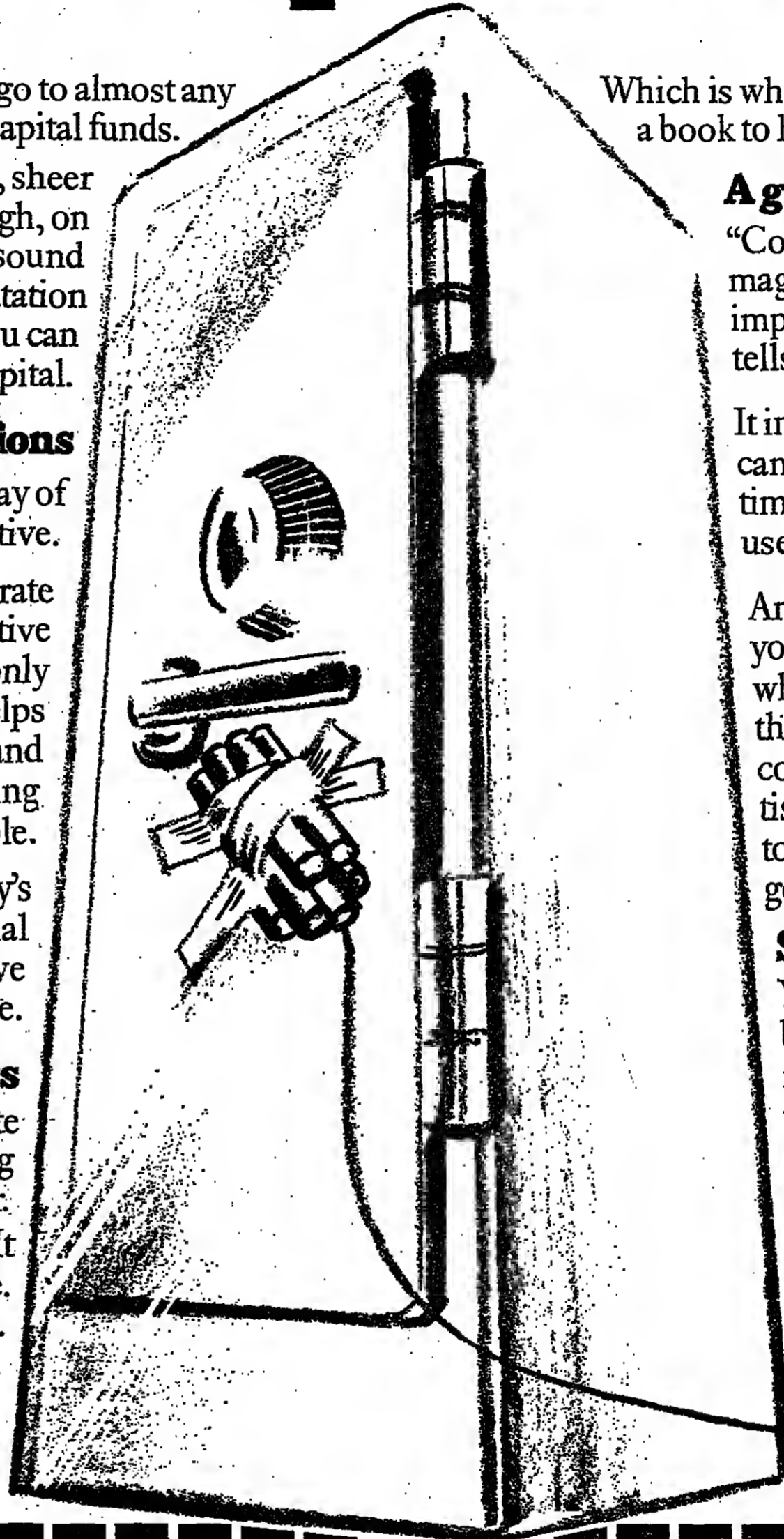
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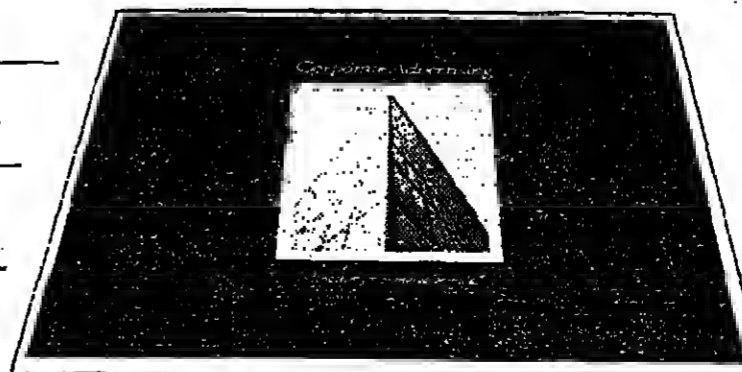
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ADDRESS \_\_\_\_\_

NATURE OF BUSINESS \_\_\_\_\_



Civil Aviation Authority set to raise its fees

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

FEES CHARGED by the Civil Aviation Authority for many of its services to the UK aviation community will have to rise this autumn to meet soaring costs. But, even so, the authority is likely to incur a bigger loss on its operations for the current financial year than the deficit of £14.5m in 1978-79.

Mr. Nigel Foulkes, chairman of the authority, said in London yesterday that apart from inflation, one of the main reasons for a deficit was the recent Civil Service pay award. It would add some £20m to the authority's costs this year, and the authority had no control over it. It was not allowed to negotiate its own pay structure with its staff, and was obliged to accept the settlement agreed between the Civil Service unions and Whitehall.

Noise controls tightened

BY MICHAEL DONNE

TIGHTER CONTROLS on aircraft noise will result from a new Government order which becomes effective today. Called the Air Navigation (Noise Certification) Order, 1979, it makes it possible for the Government to enforce noise controls on propeller-driven aircraft, which have hitherto been outside the scope of such controls.

authority made a profit of £1.9m. On its uncontrollable operations, the authority incurred a loss of £16.8m—giving a net loss of £14.9m. This compared with a loss of £13.8m in 1977-78, a £44m loss in 1976-77, and a £53.3m loss in 1975-76. This progressively declining deficit in the authority's view, clearly indicates that it is "managing its resources effectively and can stand comparison with many organisations of comparable size in the public and private sectors."

Interest rates caution continues

By Peter Riddell, Economics Correspondent

THE INCREASINGLY cautious City view about the short-term prospects for interest rates is further supported today by a batch of stockbrokers' reviews. Pammore Gordon and Co doubts that bank lending and the money supply will respond quickly to government measures announced so far, and suspects that further action may be invoked. Specifically, the short-term interest rate prospect is not encouraging.

Export optimism falls sharply

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

OPTIMISM ABOUT the general business situation in manufacturing industry has "deteriorated to a significant extent" according to the Confederation of British Industry's quarterly industrial trends survey published yesterday.

General replies

TOTAL TRADE—1,861 respondents. All figures are percentages on a weighted sample. Figures in parentheses show the response to the survey carried out last May.

Export trade

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

Are you more, or less, optimistic about your export prospects for the next 12 months than you were four months ago?

Table with columns: More, Same, Less, N/A. Rows: (a) Your present export order book is, (b) Your present stocks of finished goods are, (c) Finished goods, (d) Work in progress, (e) Raw materials and brought in supplies, (f) Work in progress, (g) Finished goods, (h) Average costs per unit of output, (i) Average prices at which domestic orders are booked, (j) Approximately how many months' production is accounted for by your present order book or production schedule?

General replies

TOTAL TRADE—1,861 respondents. All figures are percentages on a weighted sample. Figures in parentheses show the response to the survey carried out last May.

Are you more, or less, optimistic about the general business situation in your industry?

Table with columns: More, Same, Less, N/A. Rows: (a) Your present total order book is, (b) Your present stocks of finished goods are, (c) Excluding seasonal variations, what has been the trend over the past four months, with regard to: Volume of total new orders, of which: Domestic orders, Volume of output, Volume of domestic deliveries, Stocks of: (a) Raw materials and brought in supplies, (b) Work in progress, (c) Finished goods, Average costs per unit of output, Average prices at which domestic orders are booked, Approximately how many months' production is accounted for by your present order book or production schedule?

NEWS ANALYSIS—HEALTH CUTS RESISTANCE

The dilemma facing Mr. Jenkin

BY PAUL TAYLOR

THE DECISION of the Lambeth, Southwark and Lewisham Area Health Authority to flout Government requests to cut spending has brought the cash problems confronting health authorities—and the dilemma facing the Government—into sharp focus.

£428bn allocated to the 14 regional health authorities for 1979-80, except to cover agreed pay awards.

Government's Resource Allocation Working Party, one of the key elements of which is population. Although designed to distribute resources more fairly, the formula's impact on the London and South-East regions has recently been particularly severe.

General Motors UK profits fall

By Kenneth Goodings, Motor Industry Correspondent

GENERAL MOTORS of the U.S. has injected a further £10m into its UK subsidiary by way of low-interest, long-term loans.

Export trade

BY JOHN ELLIOTT, INDUSTRIAL EDITOR

Companies completing these questions have direct exports exceeding £10,000 per annum. Number of respondents 1,355.

Scottish investment likely to fall fast

BY RAY PERMAN, SCOTTISH CORRESPONDENT

CAPITAL INVESTMENT in Scotland is likely to decline more quickly than expected, according to the CBI survey for Scotland published yesterday.

BSN—GERVAIS DANONE

NO 1 IN THE FRENCH FOOD AND DRINK SECTOR

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BSN-GERVAIS DANONE, 1st French group in the Food and Drinks sector has three divisions:

- Beverages with beer (Kronenbourg-Kantorbrau), mineral water (Evian, Badoit), and soft drinks (Fruité, Eva, Canada Dry).
- Fresh products with Gervais, Danone and Stenval products.
- Dry groceries with pasta and prepared dishes (Panzaol), baby foods (Blédine, Fari-Gallia, Phosphatine), health food products (Cracottes).

THE CONTAINER SECTOR: 16% of its total turnover.

BSN-Gervais Danone is the first European bottle producer. It also makes jars for preserving fresh food, containers for the perfume and pharmaceutical industries, and glassware.

THE FLAT GLASS SECTOR: 30.8% of its total turnover.

This sector's activities (glass production for the automobile and building industries) hold a very strong international position with factories in France, Belgium, Germany, Austria, Spain and Brazil.

CONSOLIDATED FINANCIAL STATEMENTS 1978

For the 1978 financial year, consolidated turnover reached Frs. 14,388 million, showing an increase of 11.7% compared with 1977.

For each branch of activities, turnover increases is as follows:

- FOOD AND BEVERAGE 15%
- CONTAINER 12%
- FLAT GLASS 4.5%

The Group's cash-flow reached Frs. 821 million, an increase of 15% compared with 1977.

Consolidated net profit is Frs. 48.3 million against Frs. 13.8 million in 1977.

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General Motors UK profits fall

By Kenneth Goodings, Motor Industry Correspondent

GENERAL MOTORS of the U.S. has injected a further £10m into its UK subsidiary by way of low-interest, long-term loans.

The annual report of General Motors of the UK also shows that taxable profits fell from just over £10m to £8.674m in 1978.

Turnover just kept pace with inflation and rose 13 per cent from £171.5m to £194.4m.

GM Ltd, is responsible for the AC Delco components business; the Detroit Diesel Allison operation, which assembles diesel engines and adapts American-built Allison transmissions for Europe; sales of Opel cars in the UK; and owns GM Ireland.

The Frigidair refrigeration operations have been phased out, so turnover from this business in 1978 dropped from £10.5m to £1.7m.

GM Ltd. comments were hit by the nine-week Ford strike last autumn.

In spite of this AC Delco turnover improved by 18 per cent from £90.4m to £106.4m last year. The Opel Marketing Unit rose 38 per cent from £40.9m to £56.4m. Detroit Diesel Allison sales fell from £24.3m to £23.3m.

GM in the U.S. collected a \$3,577m interim dividend (£1,825m in 1977) but there was no final dividend payment.

The two loans from GM in the U.S. involved \$7m at an interest rate of 7 per cent and \$3m at 6 1/2 per cent, both repayable in March 1988.

As a result GM Ltd. was able to reduce bank overdrafts from £29.4m to £10.7m.

BM Ltd's exports last year rose from £40.3m to £44.5m, and the average number of employees was slightly down from 8,807 to 8,488.

Profit retained for the year dropped from £5.9m to £3.24m. This means that the profit retained in the business rose from £11.7m to £14.9m. The end-1978 balance sheet showed net assets at £31.3m (£18.54m).

Prices retained for the year dropped from £5.9m to £3.24m. This means that the profit retained in the business rose from £11.7m to £14.9m. The end-1978 balance sheet showed net assets at £31.3m (£18.54m).

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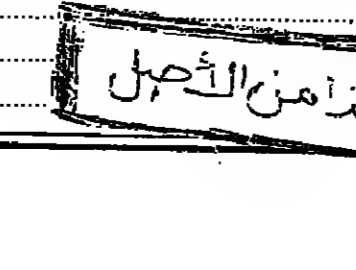
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Engineers claim partial success

BY ALAN PIKE, LABOUR CORRESPONDENT

THE Amalgamated Union of Engineering Workers claimed yesterday that some employers have already conceded in full the pay and conditions claim on which engineering workers throughout the country began industrial action this week.

"If it were not for the holiday period I would anticipate many more employers applying for dispensation," he said. The suggestion that companies were breaking ranks and settling was, however, rejected yesterday by Mr. Anthony Frodsham, director-general of the Engineering Employers Federation. He called upon Mr. Duffy to name companies.

Mr. Frodsham said that due to demands from employers he was issuing a solidarity call and had every reason to believe this was being followed. He was also asking member companies to explain to their employees the full facts of the dispute and was sure this would lead to them beginning to question the wisdom of the unions' leadership.

Mr. Tom Crispin, TGWU national secretary, said: "We are recommending that the action should take the form of area strikes on a geographical basis. But we would take account of the need to maintain essential services, such as hospitals." Areas would be hit on a daily or longer basis and by rotation.

Pilking ton stands firm on its offer

BY OUR LABOUR STAFF

PILKINGTON refused yesterday to improve its pay offer for 8,000 process workers. A 24-hour strike by the workers is expected to go ahead next Tuesday.

The company said it was disturbed that "contrary to custom" there would be no safety cover provided during the strike. Fire, ambulance and maintenance personnel would not be working.

The process workers rejected by three to one an overall offer of 15 per cent in a deal similar to that offered to craftsmen and white-collar staff. The proposed increase on basic rates of 11 to 12 per cent was unacceptable.

LLOYDS BANK took the case of the Court of Appeal after employment appeal tribunal found against it last November in a case involving two workmen clerks.

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Customs officers fight cuts

By Our Labour Staff

INDUSTRIAL action by customs officers which could affect air and sea travel will be announced today by a civil service union.

The action, in protest at staff cuts, is likely to include a work-to-rule by the 17,000 Customs and Excise members of the Society of Civil and Public Servants. It is expected to last for a few weeks.

Union officials claim that the Customs and Excise Department is planning to cut its staff by about 2,000 this year, and the review of Civil Service numbers now being undertaken could increase that figure.

The Glasgow branch of the Civil and Public Services Association at the headquarters of the Department of National Savings yesterday rejected Government plans to cut jobs at the Department's premium bond computer, ERNIE.

TV union given 15% pay offer

By Gareth Griffiths

THE INDEPENDENT television companies have made a pay offer thought to be worth about 15 per cent to the Association of Cinematograph, Television and Allied Trades.

The association has been carrying out surprise industrial action, which has blacked out some ITV programmes. Details of the new offer will be circulated to branches without a recommendation. The offer was made on Monday by the Independent Television Companies Association on behalf of the 15 commercial stations.

Officials of the 20,000 strong union will meet late this week to decide whether or not to recommend the offer. ACTT negotiators met after Monday's talks but failed to agree on any recommendation.

Both the ACTT and ITCAT remained silent yesterday about details of the offer. ACTT had been pursuing improvements in working and rest conditions.

The Electrical and Plumbing Trades Union and the National Association of Television, Theatrical and Kine Employees are considering their members' views on an estimated 15 per cent offer made last Friday.

Perkins to set up study base

THE Perkins Diesel Engines Company is to establish a marine engine research base at Wisbech, Cambridgeshire. It has asked Central Council for Planning Permission to build its headquarters on the River Nene, which will include fuel storage tanks and a ship-to-shore radio link.

Times workers' decision will take at least two weeks

BY ALAN PIKE, LABOUR CORRESPONDENT

THE NATIONAL Society of Operative Printers, Graphical and Media Personnel is to circulate copies of the return-to-work proposals at Times Newspapers to its 2,500 members the company before they vote on them.

Mr. Edward O'Brien, the union's national assistant secretary, said yesterday that a report that the proposals had already been rejected by leaders of the union's chapels (office sections) was "absolutely untrue". A decision on the formula would be taken by NATSOPA members and officials of the large numbers involved, this could not be concluded in less than about 14 days.

The union wants all its Times Newspapers members, who along with other employees were dismissed after the company suspended publication last November, to see the proposed peace formula before they vote on it at chapel meetings.

chapters would present the peace formula, agreed between national union officials and management on Friday night, with its toughest tests. Mr. O'Brien announced that the formula would be circulated to all members, said that "any speculation or distortion of the situation could only be described as harmful and detrimental to the best interests of 2,500 NATSOPA members" at Times Newspapers. NATSOPA chapel officials will meet to consider the peace formula today.

It is possible that they will decide to see changes in the proposals and ask NATSOPA officials to present these to the management.

The formula—which would lead to the reinstatement of dismissed staff once it had been accepted by all unions—will also be considered today by the national council of the National Graphical Association.

Allied Trades objected to a report claiming that their union's tight grip on recruitment meant that jobs could not be filled. Production ceased after the editor refused a request from a meeting of SOGAT members that the report should be removed.

According to the report, Mr. Bert Hardy, managing director of News Group, which publishes the Sun, sent a telegram to SOGAT—with copies to Mr. James Prior, Employment Secretary, and Mr. Len Murray, TUC general secretary—complaining that the newspaper had been short-staffed on 111 nights out of 125 since March.

Mr. Bill Miles, a national official of SOGAT, said yesterday that if there was a shortage of labour in any national newspaper office, including The Sun, the union was quite willing to talk to the management about an agreement to provide proper manning levels.

Prior says reforms 'no threat to TUC'

MR. JAMES PRIOR, Employment Secretary, yesterday rejected the TUC claim that the proposed trade union laws were a "major incursion" into unions' rights.

But he made it clear that the Government would act to limit picketing and extension of the closed shop "in ways which have given rise to widespread public concern."

There would be no point in putting forward the proposals if they did not have the support of the TUC general secretary. In a letter answering the TUC response to the proposed laws, Mr. Patrick Mayhew, junior Employment Minister, said in a speech in London yesterday that the Government was not "seeking confrontation" with the unions.

In his letter to the TUC, Mr. Prior said: "I am surprised the TUC general council should regard these proposals as other than 'limited' compared with the legislation on industrial relations carried by previous administrations of either party, and notably by the last Labour Government."

It was true — as the TUC stated — that the Government was reviewing trade union immunities, particularly over "secondary" action.

The proposals were part of a wider approach to "get the country moving again" with a "better balanced framework of legal rights and obligations within which unions can operate effectively and responsibly."

But they did not represent "a major incursion into basic trade union rights." They were intended to be directed at particular problems that needed to be remedied.

Mr. Mayhew in a speech to the Society of Civil and Public Servants in London, attempted to calm TUC fears that all industrial action will be threatened by allowing employers and others to sue for breach of commercial contract through strikes or other action.

"We are not suggesting that the right to picket peacefully at your place of work should be removed, nor are we creating any new criminal offence beyond those which already exist," he said.

"We intend that the livelihoods of workers not connected with the dispute shall be protected."

The Government was not planning to outlaw the closed shop but future closed shops would need the "overwhelming" support of employees before they could be introduced, and existing employees would be protected.

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But they did not represent "a major incursion into basic trade union rights." They were intended to be directed at particular problems that needed to be remedied.

Magistrates courts face clerical action

MAGISTRATES COURTS outside London may have to suspend their sittings because of selected industrial action by members of the Association of Magisterial Officers from today.

Mr. Colin Jeeves, president of the 4,500-strong association, said his members would take selective action, but no full-scale walk-out was planned. Some courts might be forced to suspend sittings or be unable to sit because of the staff action.

One of the options most likely to be adopted was a work-to-rule. Three quarters of the members are clerical and administrative staff, and the remainder sit as justices clerks' assistants.

The local authorities have offered a pay deal worth about 12 per cent, with 9.4 per cent new money and the rest from restructuring.

There is also a promise of a reference to the Clegg Commission on comparability with the findings to be implemented in full by next January. The settlement was due for agreement on July 1.

A meeting of both sides at the Advisory, Conciliation and Arbitration Service last Thursday failed to produce an agreement. Pay talks collapsed on July 30, and the local authorities say they cannot improve their offer. No further talks are planned.

SE England industry plea

THERE IS a "vital" need for more industrial development in south-east England, says a South East Economic Planning Council report, which will be sent to the Industry Secretary.

The council says there is now "a much weaker case for holding back development in the region than ever before."

Blid to speed up tunnel traffic

AN EXPERIMENT on improving the traffic flow in the Blackwall Tunnel is to start on Monday, the Greater London Council said yesterday.

For three weeks, northbound traffic of motor cars heading for north of East India Dock Road will be able to use one lane of the southbound tunnel.

The experiment is organised jointly by the GLC and the police. It aims to reduce the long delays to northbound traffic during the morning peak hours.

The commission for their participation, but officials said that many others are either doing nothing or very little.

The commission wants larger companies to participate because they offer more varied work experience and because their personnel and education departments provide important back-up work.

The commission is confident that in spite of cuts in finances imposed by the Budget and the Government's insistence on staff savings, which could lead to cuts of 10, 15 or 20 per cent, the future of the YOP is not in doubt. Officials have less confidence about the future of STEP, though, which could disappear should a 10 per cent cut be imposed on the commission's special programmes division.

Mr. Geoffrey Holland, special programmes director, said that if unemployment rose towards 1.7-2m this year, the rate among school leavers could rise three times as fast. Though the numbers of school leavers unemployed was down at about 200,000, that figure disguised wide regional variations.

In Wales, Scotland and the North, for example, there were about 120,000 unemployed school leavers and only about 7,000 vacancies notified to the careers service.

The commission, though, was determined to expand the YOP, which last year helped more than 162,000 young people without jobs to get work experience. The expansion would allow it to help about 210,000 young people.

The STEP, which provides 12 months' work for long-term unemployed adults, gave temporary jobs to 19,700 people last year, though the commission admits that less than half of these taking part came from its priority groups of 19- to 24-year-olds and those over 25 unemployed for a year.

The commission's report notes full trade union support for the programmes, except for local level difficulties which have contributed towards the lack of manual opportunities in manufacturing, and for the Civil and Public Services Association, the largest Civil Service union, which has prevented Government departments or agencies setting up schemes.

The gross costs of the schemes, not taking into account unemployment or supplementary benefit savings, were estimated at £63m for the YOP and £10m for the STEP.

More urged to join work scheme

BY PHILIP BASSETT, LABOUR STAFF

THE MANPOWER Services Commission is to make a new effort to persuade more well-known companies to provide work experience for school leavers and the long-term unemployed.

A report published yesterday by the commission, on the first year of its youth opportunities programme, criticises private-sector employers, particularly in manufacturing, for failing to participate fully in the scheme.

Mr. Richard O'Brien, commission chairman, is to approach the chairmen of the major companies which have so far been reluctant to join the schemes.

Only about 10 per cent of companies participate in the YOP are large, well-known. Some such as GEC, ICI and Marks and Spencer, are picked

COMPANY NICES

U.S. \$1,000,000 ARAB INTERNATIONAL BANK FLOATING RATE NOTES 1983. For the six months from 1st Feb. 1979, to 1st February, 1980. The Notes will carry an interest rate on the relevant interest payment dates of 27.75% per annum.

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THE GREAT NORTHERN GRAPH COMPANY HOLDINGS LIMITED. The Ordinary General Meeting will be held at the Company's Registered Office on Monday, the 27th August 1979.

AGENDA. 1. Report of the company's auditors for the year ended 31st March 1979. 2. Dividend. 3. Proposed increase of the share capital of the company.

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CLUBS. EYE has cultured the finest because of a policy of fair play and strict money control.

LEGAL NOTICE

THE COMPANIES ACT 1968. NOTICE OF APPOINTMENT OF LIQUIDATOR. In accordance with the provisions of the Companies Act 1968, I, the undersigned, have been appointed Liquidator of the company.

ART GALLERIES. BLOOM FINE ART. 32, Southville St., W.1. Paintings and Watercolours. Unit 4, 2nd Floor, 100, Strand, London, W.C.2.

JUGOBANKA UNITED BANK (Formerly Jugobanka). FLOATING RATE NOTES DUE 1983. In accordance with the provisions of the prospectus, the Bank has determined the rate of interest payable on the Notes to be 12.75% per annum.

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MANAGEMENT

The "spiral staircase" leading to Japan's top jobs

BY SANDRA SAMAN

SATOSHI OKUBO's appointment last year to the most important financial job at Honda Motor of Japan came after a lifetime with a single company.

Okubo's career progress through Honda, up to the position of managing director for finance, would be highly unusual in a Western company.

So well-established is this circuitous career route to the top that it is common to hear Japanese managers refer to the "spiral staircase" in contrast to the strictly linear Western metaphor, the ladder.

The job rotation system accounts for many of the strengths as well as the weaknesses of Japanese business.

The Japanese believe that the practice helps to create company men who have the interests of the entire organisation at heart rather than those of their individual departments.

The job rotation system also overcomes many of the disadvantages inherent in life employment — still dutifully followed by most firms.

likelihood of being either fired or hired elsewhere, he could easily succumb to complacency and boredom.

The danger is particularly acute among the Japanese, suggests Nobuo Kitajima, a Honda general manager who believes that his countrymen are short sprinters, not long-distance runners.

Western critics say that the system has major drawbacks. A common complaint was recently voiced by the managing director of a small English company; in the decade of his business relationship with Mitsu, the giant trading house, he had had to work with a series of strangers.

Other Westerners complain that the system breeds generalists at the expense of needed expertise.

William Royce, a senior economist for SRI International, the California research and consulting group, says "the abhorrence of specialisation in Japanese management makes it virtually impossible to give good staff members the training and experience necessary to become real experts at any particular function."

Certainly the system depends upon a docile managerial group that unquestioningly accepts its role as a cog in the great corporate machine.

For the following 10 to 20

years, depending on the nature of the company, the graduates who entered together in the same "class" may well travel through the company step by step, while they may be late among several departments they are promoted at the same time and they approximately the same salaries.

Recent economic pressures have begun to slow the march of the classes; the board automatic promotions are discontinued and the most promising executives are allowed to be singled out earlier in their careers.

Mitsu, while beginning to discriminate among employees at the assistant manager level, nonetheless applies job rotation to its younger executives as zealously as does a shifting the average initial every three years.

To implement its rotation scheme, the personnel department at Mitsu conducts a rotation study each November, in a computer on which are recorded each employee's positions and duration in every one of the more than five years in which he has been in the company.

Even companies without such formalised rotation programmes still try to create generalists. potential managers in Japan who are capable of appreciating the company's overall life interests.

The scheme is based on the "kyoto," loosely translated as the deputy headmaster of a school. (IHI's president, who originated the scheme, is equivalent to the headmaster himself.)

In this method, IHI's 3,000 middle managers are divided into groups, with each group containing a judicious mix of engineers, administrators and others from IHI's shipbuilding, pulp and paper, engineering, cement and other sectors of activity.

Each group annually selects a subject relevant to IHI, such as overseas procurement or in-house engineering ability, and to project management.

Through such groups the company hopes to achieve a more general outlook. It believes this attitude has become more important as IHI shifts from traditional line-and-staff management to project management.

While schemes such as the kyoto system constitute a more informal means of employee education, Japanese companies also invest heavily in formalised rotation programmes.

and construction firm, allocates an annual ¥200m (£12,000) for education and training, of which half is spent overseas.

In an average year it sends a select 15 or so employees abroad for a minimum of three months, at a cost per man of ¥2m.

But it would violate the pecking order to educate the younger men who have a better grasp of English, explains an NKK personnel manager.

In the long run, the substantial investment pays off because there is little turnover among even the best-educated and seemingly most marketable employees.

Senior managers at NKK admit that if employee turnover were to be significant, the company might have to make provisions to recover its education costs.

Senior managers at NKK admit that if employee turnover were to be significant, the company might have to make provisions to recover its education costs.

Multinational approach to cutting costs

BY ERIC SHORT



THE PROVISION of life and other associated insurance benefits by multinational companies for their employees throughout the world is now an accepted feature in the overall remuneration package.

The additional cost arises on two counts: the first being the restrictive practices imposed by authorities on their country's insurance industry, or from commercially imposed cartel operations.

In the UK, insurance companies are completely free from government control regarding the setting of premium rates, consequently life premium rates are very competitive and companies buying life insurance generally get a good deal.

Rates set by legislation

In contrast, the premium rates for certain types of insurance business are fixed by legislation in a number of European countries.

The original object of this tariff system was to protect policyholders. But with improving mortality and, historically, high interest rates, insurance companies have been making substantial profits on life business which have not been returned to the policyholders.

The second additional cost arises because benefits of scale are not realised. The unit cost of buying life insurance falls with the increase in numbers of employees being insured.

However, a development in recent years where the operations of insurance companies in

different countries are combined now offers multinationals the opportunity to cut insurance costs.

A multinational insurance arrangement is effectively an agreement between the insurance companies in the various countries which pool their insurance results in respect of a particular client.

The system works as follows: each insurance company retains annually the profit made from a particular client from the insurance, placed with it.

The profit is then related to a pool—known as an international dividend—and each company can usually receive this rebate in a particular currency.

A spin off from this set-up is that multinationals can effectively transfer funds from one country to another irrespective of the exchange control regulations that may be in force.

Other, not insignificant, cost savings and benefits are also available to both the company and its employees through using a network. A company can, for example, get credit for its total number of employees worldwide. The insurance company

is prepared to cost the cover on the basis of the total number of employees, not just those employed in a particular country.

The higher the number of employees, the more relaxed are the underwriting arrangements. Thus an employee with poor health could get full cover whereas, in a smaller pool of employees his cover could have been restricted.

Arranging network insurance can also simplify the transfer of benefits when employees are moved from one country to another. Full reserves can be transferred, underwriting will be on the same basis and, most importantly, the payment of pension can usually be made in one chosen currency.

Greater control

Finally, operating through a network enables the parent to maintain greater control over the "best" structure of the group. After each review period secretary supplies the parent company with an account showing the financial transactions of each of the plans covered by the network.

"A Study of Multinational Insurance Contracts in the context of Employee Benefits" from Metropolitan Pensions Association (International), Heronmarket House, 28 Heronmarket, London SW1Y 4SR (telephone 01-838 7411)

Technical News

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

COMMUNICATIONS

Speeding the news to site

Siemens is offering this equipment to meet situations where availability at all times is essential such as in the operations of utilities, technical support offices and spare parts stores.

HF 2050 is attended at the transmitting station and can function in either mode at the receiving end.

At the receiving end, a 12-nozzle ink-jet recorder prints the output, the ink droplets being "shaped" into characters as they pass through appropriately modified electrical fields.

Messages exchanged between subscribers operating on the three-minute (A4) speed are recorded at a scanning density of 3.85 lines per millimetre.

At the end of each transmission run, the paper carrying the incoming message is automatically extended to the next larger size, A5L or A4, cut off and stacked.

Automatic station identification, stack feed for transmission, internal V24 interface and a key switch for barring the "send" function are options that can be retro-fitted.

ASSEMBLY

Press for the new Mini

TWIN RAM hydraulic presses which will electronically check bearings and oil seals before assembling them into the front hubs of the new Austin Morris Mini Metro are being supplied by John Hounsell (Engineers), of Rowley Regis.

The car company's specification was for a hydraulic press capable of automatically probing components to check for correct loading before assembling them into the hub.

Use of twin rams meant that two different operations could be performed in one cycle: while the first probes and assembles the inner and outer bearing race into the hub, the second probes and assembles the oil seals and spacers round the bearings.

Small probes built into the tools will only make contact with the components when they are properly loaded. If no contact is made, the ram will not operate and a fault is indicated to the operator.

HEATING

Saves on fuel usage

NEWLY DESIGNED by British Gas Midlands Research Station, a vat and tank heating burner is to be marketed by Wellman Selas.

The name chosen for this equipment is Vasek and it has been designed specifically for the heating of solutions in containers by direct gas firing of small-bore immersion tubes.

Burner designs such that it combines the efficiency of gas firing with the compactness of steam heating.

Common to any industrial heating of tanks and tanks is generally by means of steam-fired immersion tubes or gas-fired natural draught immersion tubes. Typical applications would include degreasing and pickle tanks, boshpating vats and various operations in brewing.

The new equipment will allow costs to be cut both in capital installation and in fuel consumption.

Efficiency of the steam-fired systems does not exceed 60 per cent while the natural draught gas-fired systems go up to 75 per cent. The new and much more compact equipment has a

claimed efficiency of 80 per cent. Five sizes of burner have been developed with ratings from 18,000 to 1m BTU/hr (approximately 50 to 300 kW) for use on tubes which conform to BS 337 (or equivalent), the tubes being 1.2, 2, 3 and 4-in nominal bore. These outputs are far higher than needed for domestic installations and so far as is known there is no plan to

TEXTILES

High speed weaving

WITH textile machine building generally at over-capacity throughout the world, current news is of companies being established to make machines for complex new processes.

However, such is the situation in weaving that there is clearly a market for simple, robust and inexpensive machines if they are offered with a distinctive advantage.

A gripper-shuttle loom has been developed in West Germany by a company called Nentex International GmbH (British representative: Schulz Systems (UK), 10 Eden Place, Chislehurst, Kent, SE26 4JH).

The main aspect of this high speed weaving machine is its extremely low price, compared with equipment intended for similar weaving speed, at matching widths. The concept of the loom is extremely interesting.

Some years ago, a loom designated STB was developed in the Soviet Union and attempts were made to market it in the West, but there was virtually no acceptance as it was felt that the reliability of the machine

was inadequate and that spares and service would not meet Western requirements.

However, the Nentex MSL loom is based largely on the Russian concept. It has been built with basic components from the USSR, Hungary and Czechoslovakia, while the more critical elements such as reeds, heads, temples, tension bars, etc., are either West German in origin or from the U.S.

There is a guarantee of support and service that now makes the new loom of interest to Western weavers.

The introduction of the MSL—Micro Shuttle Loom—into the trade recently generated much interest and it was described as the "Volkswagen" of weaving.

It is being built in one, two and four colour warp versions and with a machine making a cloth of say 3300 mm width at 235 picks/minute this represents a weft insertion rate of about 742 m/min at 100 per cent efficiency.

Unlike many shuttleless machines the MSL produces a cloth with a tucked-in selvage

VENTILATION

Collects and filters the smoke

FIGHT FOR energy conservation linked to pollution control has been joined by Myson with its new range of packaged industrial electrostatic air filters, known as Microstat.

There are five basic models covering duties from 6,000cfm to 5,000cfm at up to 24 inch wg external resistance. Units are in standard in-line formation or T formation with a fan box interposed between two filter units.

Features also include solid state controls, heavy duty two-stage electrostatic filter with choice of cell spacings and integral centrifugal fan all housed in a sturdy industrial case.

They are said to be ideally suited to the collection of oil mist or welding smoke and cleaned air can be recirculated back into the workshop.

Myson Group Marketing, Industrial Estate, Ongar, Essex (02776 4311).

AGRICULTURE

Better greenhouse crops

RAISING the CO<sub>2</sub> level in greenhouses is a widely-used technique for improving the yield and quality of many vegetables, particularly lettuce, tomatoes, cucumbers, spinach and strawberries, says Heyle Heating and Ventilating, 53 Fleet Street, London EC4 (01-353 5601).

Additional advantages include shortening the growing cycle and being able to bring crops to maturity one or two weeks earlier when prices at market for quality produce can be at a premium. These benefits also apply to growing roses, carnations, freesias, chrysanthemums, orchids, and other flowers and ferns.

Providing carbon dioxide enrichment and helping to relieve the worsening situation caused by the present shortage of premium grade paraffin—the company's direct-fired gas heater will work on town or natural gas.

Largest in the company's range of CO<sub>2</sub> generators, it is capable of increasing the temperature of 8,700 cubic metres of air by 47 degrees C an hour.

The recommended maximum greenhouse area for CO<sub>2</sub> enrichment is 16,500 square feet, depending on the type of crop, required CO<sub>2</sub> level, and type and condition of the greenhouse.

Using a timer and/or a thermostat, up to six units can be connected in series to accommodate larger areas and give more uniform distribution.

Advanced design feature of the new generator is the provision of a quick-acting safety cut-out, consisting of an ionisation electrode mounted in front of the burner and wired into the control box. Should the flame die due to an ignition spark failure or temporary interruption in fuel supply, the absence of ionisation current triggers the control box which instantly cuts off the fuel supply.

ELECTRONICS

Micro on a board

WITH SMALL scale automation and process control applications in mind such as automatic weighing and batching machine tool control, material handling and security systems, Stratronic of Exchill has introduced the SSC1, a complete microcomputer on a single Eurocard measuring only 160 x 100 mm.

Although many companies might still be thinking in terms of dedicated logic control systems, Stratronic points out that the need to tailor the circuits to each and every application can mean that development costs often far exceed the cost of the hardware involved.

The idea behind the SSC1 has been to design a standardised piece of equipment which would suit a wide range of systems simply by programming to meet each need.

Basic specification includes a 1024 x 8 non-volatile program memory which can be supplied pre-programmed to the user's initial specification and subsequently re-programmed.

An on-card battery backs up the 256 x 8 read/write memory for data retention during a power loss and a buffered I/O way allows operation up to 15 volts, giving good noise immunity.

Maximum input/output capacity is 128 lines, and each standard interface card provides eight inputs and eight current drive outputs of 750 mA each at up to 60 volts.

The SSC1 software meets a wide range of requirements, and program changes can be made either by Stratronic or by the user, employing programming equipment that can be bought or hired.

More from the company at Beeching Road, Exchill-on-Sea, Sussex TN39 3LG (0424 214291).

STORAGE

Package for tapes

UP TO six audio tape cassettes can be fitted into a box injection moulded in one piece from polypropylene and now being produced by the industrial division of the London Association for the Blind. Hinged fasteners are integrally moulded.

The boxes, which are suitable for both storage and posting, have slots for removable address cards, spaces for names and addresses, for advertising matter and for library reference tabs. Supplies can be obtained from the Association at 14-16 Verney Road, London SE16 3DZ (01-732 8771).

CONFERENCES

Sheet and strip

THE ANNUAL Conference of The Institute of Sheet Metal Engineering will be held at The Unicorn Hotel, Bristol (October 24 to 26), and will take as its main theme, "Sheet and Strip — How to get it right for Processing".

The conference is being held in association with The National Association of Steel Stockholders and the British Contract Presswork Association.

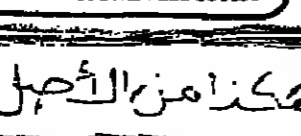
Details may be obtained from The Conference Secretary, The Institute of Sheet Metal Engineering, Queensway House, 2 Queensway, Redhill, Surrey RH1 1QS, England. 0737 66611.

Many new products

OF MORE than 120 companies taking part in FILTEC/79, Olympia, London, September 18-20, 40 of them promised to show products for the first time in the UK and in several cases, these will be European or world launches.

announces Filtration Society, 7, Katharine Street, Droydon, Surrey.

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# FINANCIAL TIMES SURVEY

Wednesday August 1 1979

حكايا من الأهل

# Satellites

As a technological tool of mankind, the unmanned Earth-orbiting satellite is still less than 22 years of age, but it has already revolutionised communications and meteorology, and looks like doing the same in many other fields in the years ahead.

## Keeping tabs on the Earth

By Michael Donne  
Aerospace Correspondent

THE WORD "satellite" first penetrated general consciousness with the launching of the Soviet Sputnik I in October, 1957. Since then, those unmanned Earth-orbiting devices have become almost commonplace. While communications and meteorology (and particularly weather forecasting) remain at least for the present, the biggest single fields of satellite activity, the ever-expanding roles of the satellite now encompass two major fields. These are "scientific" satellites, which are aimed at expanding man's knowledge in many different scientific disciplines, and "applications" satellites, for a widening range of practical tasks. The latter include monitoring Earth's resources (a turn ranging from the detection of fish shoals to discovering mineral deposits), through environmental studies and such other uses as navigation.

Relentlessly well understood and established for the scientists throughout the world, but especially in the U.S. and Europe, to be able to spend more time and money on exploring new applications. The satellite itself has now become little more than a vehicle, into which an ever-widening array of micro-miniaturised components can be installed to make it do almost anything that mankind wants it to do. Whereas, initially, the size of satellites was restricted also by the ability of launch vehicles to cope, the impending emergence of new launcher systems such as the U.S. Space Shuttle and the European Ariane will enable even bigger satellites to be placed in space, and perhaps even the construction in space of satellites and space stations that could not be launched from Earth in one piece because of their size.

It is estimated that there are already more than 2,400 satellites of various kinds—communications, defence and others—in orbit round the Earth, and that over the next decade well over another 200 will be added to the score, for a wide variety of purposes. Many of these will be satellites for undeveloped countries seeking to improve their own communications links with the rest of the world, and to get the benefit of the widespread new technological development that offers.

These developments, collectively costing several billion dollars, will all need to be financed. In many cases, of course, governments will be supporting the ventures as part of overall economic development schemes. But in other cases, and especially where commercial satellite ventures are concerned, there will be a need for loans of substantial size—for the provision of, say, a fibre-satellite communications system with associated ground stations can cost anything up to \$150m. There is no reason why this kind of cash cannot be provided by existing financial institutions, in much the same way as new fleets of civil airliners are already funded. Indeed, a number of banks and other institutions in the City of London are already involved in this business.

The biggest single fields of actual and prospective satellite applications at present are in telecommunications and meteorology. There can be few TV viewers who have not by now seen pictures of events on the other side of the world almost as soon as they have occurred, or few businessmen sitting in their offices who have not been instantly connected with others many thousands of miles away—without realising the enormous strides in satellite and earth station technology that have made such developments possible in recent years.

In the U.S., much of the past and present satellite activity has been and is undertaken by the Government-owned National Aeronautics and Space Administration. But there has also been a growing tendency for U.S. commercial organisations to develop in this field, such as the Communications Satellite Corporation (COMSAT), which manages the Intelsat system on behalf of the countries that own it, and other more recent organisations such as Satellite Business Systems, formed jointly by IBM, Comsat General (a wholly-owned subsidiary of Communications Satellite Corporation) and Aetna Life and Casualty.

In Europe, although many countries continue to run various space activities of their own, including the commercial manufacture of satellites for both scientific studies and applications technology purposes, the major space developments are entrusted to the European Space Agency, set up in May, 1975. Its task is to provide for and promote, for exclusively peaceful purposes, co-operation among European countries in space research and technology, with a view to their use for scientific purposes and for operational applications. The members are Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, Switzerland and the UK, with Austria, Canada and Norway participating in certain programmes.

The general budget for 1979 amounts to 370m accounting units (or about \$684m), with France and West Germany being the biggest individual subscribers at 33.4 per cent and 26.8 per cent respectively. The UK's contribution in 1979 is 11.7 per cent. The biggest single items of expenditure in the current year are the Ariane rocket launcher, designed to provide Europe with an independent satellite launching capability, taking 28.6 per cent of the budget, and the SpaceLab, the manned orbital laboratory which Europe is developing as its contribution to the U.S. Space Shuttle, taking 22 per cent of the budget.

Satellite technology, and its associated communications links with the ground, are now suf-

fering the economic benefits derived by companies involved in satellite and other space work, amounting to several times the face value of original contracts, resulting in the creation of new products, improvements in the quality of work because of high technological content of space-related activities and widening commercial horizons for the companies concerned because of the need for international collaboration and diversification into areas hitherto unexplored.

As the NOAA report pointed out, the advent of the satellite can be summarised as probably the greatest single advance in the routine monitoring of the Earth and its environment in history, not only helping to save lives and property from natural disasters, but also contributing materially to the improvement of mankind and to the efficiency of the world's economies.

Of more immediate significance, in the light of current

energy problems, must be the development of major satellite systems that can utilise the sun's energy in space and transmit it to Earth. In recent years, many ideas have been mooted for such developments, but hitherto, their high cost, allied to technical difficulties, have prevented any large-scale programmes from getting under way. As the energy difficulties on Earth multiply in the years ahead, however, it seems likely that increasing attention will be paid to such developments, and it is not beyond the bounds of possibility that within a very few years some major schemes will be initiated.

Comparatively little detailed information is available about the use of satellites for defence purposes, but it is known that, apart from normal defence communications, both the U.S. and European nations already make considerable use of information derived from satellite surveillance of the Soviet Union and Warsaw Pact countries, and vice versa, and this is likely to become even more significant in future as part of the verification techniques of ballistic missile developments required under the SALT II agreement between the U.S. and the Soviet Union. Mr. Lyndon Johnson, when President of the U.S., remarked that the reconnaissance value of space technology alone was worth many times the entire U.S. investment in all space activities, and this assessment must be even more accurate today. The long-term development of satellites as weapons-carriers cannot be ruled out. Technologically, it is already possible, but the mutual destructiveness of such systems appears to be sufficient at present to keep the major protagonists from embarking upon large-scale development programmes in this field.

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Of more immediate significance, in the light of current



EUROPE'S PRE-OPERATIONAL COMMUNICATION SATELLITE ON STATION

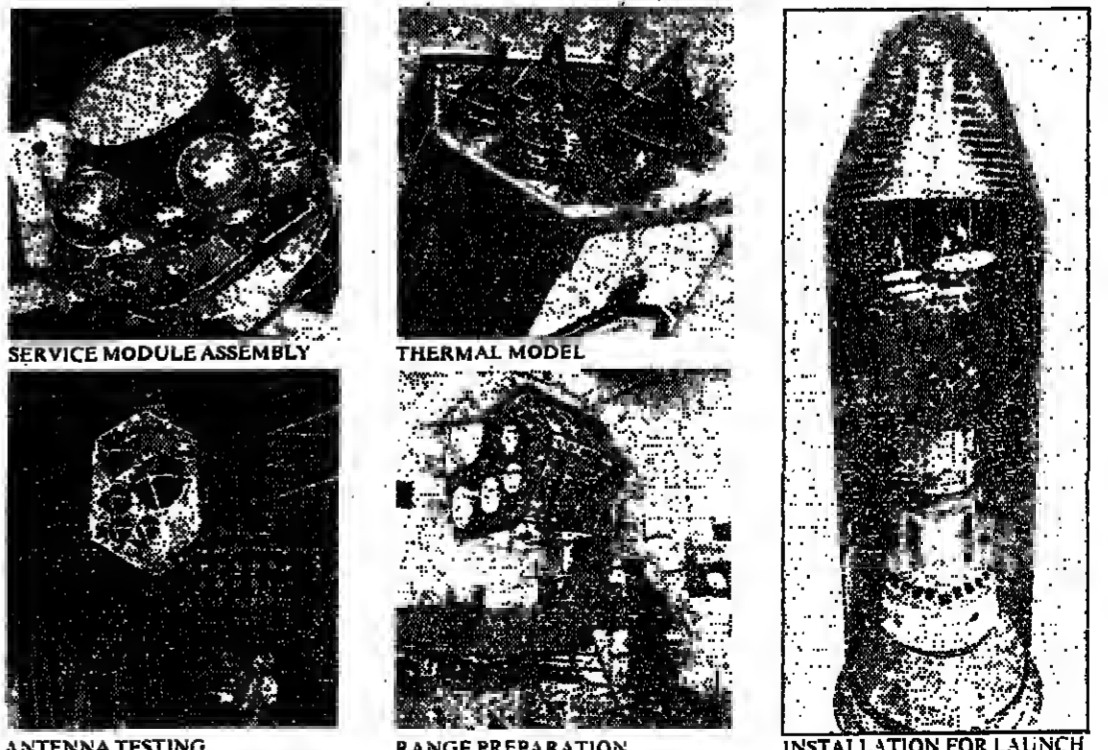
## The proven success heralding great things to come

### Another major achievement for British Aerospace Dynamics Group,

the ESA communications satellite OTS was successfully launched on the 11th May last year. Completed on time, and within budget, OTS is meeting all its design goals in orbit.

Orbital Test Satellite (OTS) has completed its first year in space. British Aerospace Dynamics Group was the prime contractor leading the MESH consortium that built it for the European Space Agency. OTS is the pre-operational communications satellite being used to prove the design and system engineering embodied in the European communications satellite (ECS) now being built. The first is scheduled to be launched in 1981. OTS has met and exceeded the performance standards specified and is working perfectly, providing operational experience for European user authorities. It has also successfully performed tasks outside the original concept by receiving TV signals which can be received by small mobile ground stations and by transmitting TV signals which can be received by small mobile ground receivers. During its first year in space, the versatility of OTS as a TV link has been further demonstrated. It was manoeuvred to beam TV to Cairo and Rabat where transmissions were successfully received. French TV is now to be beamed to Algeria via OTS.

With 4 wide band channels OTS can accommodate up to 7,200 telephone circuits, or one channel can handle two TV transmissions. OTS is providing the telecommunications organisations of Europe with practical experience in operational use prior to the commissioning of the two ECS satellites in the early 1980s. Ground data link transmission is also being developed. OTS has a design life of five years but is confidently expected to remain in service beyond that. Together with two maritime communications satellites, currently being developed for the European Space Agency, the new space programme represents contracts in excess of £75,000,000 and secures employment for many skilled designers and telecommunications engineers throughout Europe, led by British Aerospace Dynamics Group as Prime Contractor. British Aerospace Dynamics Group is an acknowledged international authority in communications satellite technology. It has the expertise and the capability to provide regional communications systems virtually anywhere in the world today and is ready to do so.



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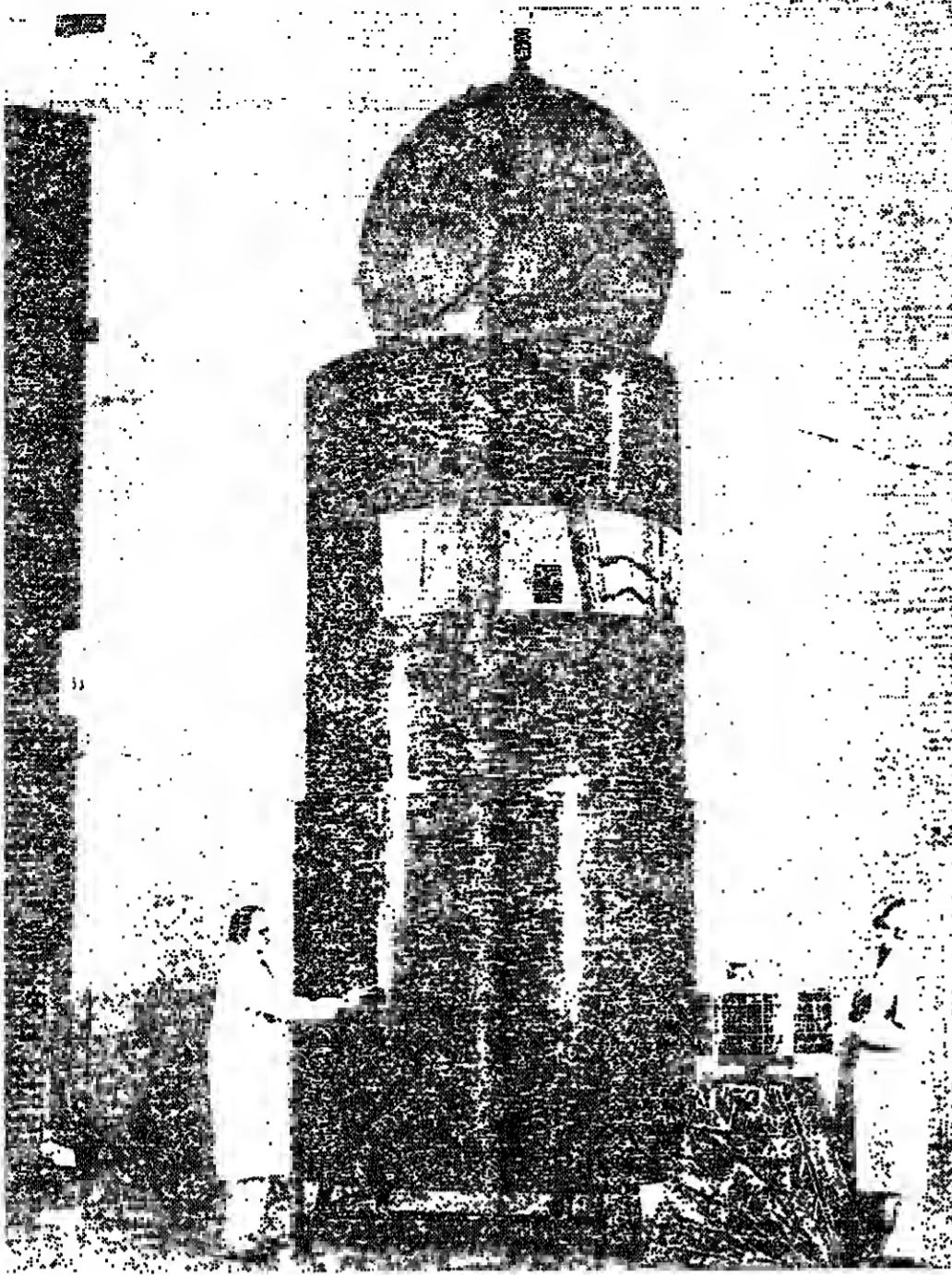
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# SATELLITES II

## Civil applications



The rapid growth in the size of communications satellites in less than 20 years is shown in this picture. The U.S. Hughes Aircraft Company's Syncom satellite of 1963 had capacity for 50 two-way voice channels or one TV channel. Dwarving Syncom is a full-scale model of the type of spacecraft to be used in the planned U.S. Satellite Business Systems venture, with capacity for 13,900 simultaneous telephone calls. The SBS satellites will provide U.S. business customers with integrated voice, data facsimile and teleconferencing facilities from 1981

THE CIVIL applications of satellites, as opposed to the scientific tasks they undertake, range widely across not only telecommunications and meteorological studies—still the two biggest single uses for satellites—but also such things as "Earth resources monitoring" and environmental studies. These are also very wide fields of applications, including such diverse things as studying the movements of fish shoals, helping the sea-fishing industry, and other aspects of oceanography, through to navigation, measuring pollution over cities and industrial areas, and helping to determine the location of new mineral deposits. Many of the satellites undertaking these latter tasks are known as "remote sensing" satellites, and already there have been a large number of them, collectively known as the "Earthnet" programme, including the U.S. Landsat, Seasat and the Nimbus satellites.

In Europe, much work has also been done already on this type of Earth observation from space, and plans are being laid to expand it substantially through the 1980s. These include the provision of microwave remote-sensing experiments in the European Spacelab manned orbital laboratory that will be part of the U.S. Space Shuttle Reusable Space Transport programme. It is also planned that the Spacelab will carry a metric camera, a modified Zeiss RMK A 30/23 high-quality aerial mapping camera, to determine the feasibility of producing small-scale maps from space photographs.

The longer-term plans in Europe for a remote-sensing programme include studies for specific satellite payloads that would be capable of studies into agriculture and forestry, water resources, environmental monitoring, global ocean monitoring (including studies of the polar ice and the circulation of currents) and coastal ocean monitoring (including studies of fisheries and surveillance of oil exploration and other activities on the European continental shelf).

### Dual

Another meteorological satellite planned for launch by Ariane in 1981 will be Sirio-2. This will have a dual role—the distribution of meteorological data, particularly to African countries which do not have equipment of their own to get data from the World Weather Watch, and also to synchronise on a world scale the atomic clocks (to a precision of one nanosecond, instead of the present figure of 100 nanoseconds), by means of laser echoes on reflectors placed on the satellite.

The Meteosat was built for the ESA by the COSMOS industrial consortium, under the leadership of Aerospatiale of France, and including Marconi Space and Defence Systems of

the UK, Selenia of Italy, ETCA of Belgium, and Siemens of West Germany.

Many companies, but especially those in the aerospace and associated electronics industries, are involved in satellite design, development and manufacture, as well as in the provision of the "ground stations and associated infrastructure that the "space segment" requires to be fully usable for mankind. The high precision technology that this work requires is leading these companies into new fields of activity, and is continually spearheading the development of newly industrial techniques, especially in such areas as the micro-minimisation of components.

In addition to the "space segment," the "ground segment" has developed just as rapidly, with some companies specialising in the design and development of receiving and transmitting stations, including Cable and Wireless and Marconi Communications Systems in the UK.

The size of this side of the satellite business can be gauged from the fact that there are now estimated to be some 200 earth stations in more than 80 countries, providing well over 217 antennae, and many more are likely to be built through the 1980s. In order to meet the requirements of the European post-telecommunications and broadcasting administrations for point-to-point communications (telephone, telegraph, telex, Eurovision TV programmes and data transmission), the European Space Agency some time ago developed the Orbital Test Satellite (OTS). The first of these was lost on launching in 1977, but the second has been functioning successfully since May, 1978. The aim of OTS-2 has been to demonstrate the performance of on-board satellite equipment, and to provide an experimental, pre-operational traffic capacity of 6,000 telephone circuits or 4,500 telephone circuits and two TV channels.

This work will lead into the development of the European Communications Satellite system (ECS), the first satellite of which is due to be launched aboard the Ariane rocket in late 1981. Earlier this year, an organisation called Interim Eutelsat, comprising 17 of the European telecommunications

administrations, signed a \$200m agreement with the ESA for the provision of five satellites over the next decade. Under this arrangement, the ESA will provide the "space segment" for the next 10 years.

The contract for the first two satellites has been placed by the ESA with the British Aerospace Dynamics Group, leading the MESH consortium, comprising companies from 10 European countries. The contract for the supply of the next three satellites is still under discussion. The ECS programme will provide Europe with a regional communications system, covering telephone, telex, TV and data transmission, with a capacity equal to 20,000 telephone circuits, or 12,000 circuits and some TV channels. The first satellite will be launched in late 1981, and the second some ten months later. One will be in use, with the other as a back-up, ensuring a continuous operational service.

### Maritime

A programme of development of European maritime satellites is also under way, called Marecs, derived from the ECS satellite, and aimed at making it possible for ships at sea to communicate instantly with shore stations thousands of miles away. The first two satellites, Marecs A and B, are scheduled to be launched by the European Ariane rocket in 1980 and 1981. The operation of the system, including a network of six satellites (three Marecs and three Intelsat-Vs equipped with maritime payloads), will be entrusted to a new international maritime communications organisation, INMARSAT.

Many of the European communications satellites, including the OTS, the ECS and Marecs, have been or are being developed by a major consortium of companies, called MESH, which includes Eugin, Matra from France, ERNO from West Germany, SAAB-Scania from Sweden, British Aerospace's Dynamics Group, Aerialia from Italy, INTA from Spain and Fokker-VFW from Holland. MESH companies have individual consultancy contracts with TRW Systems of the U.S., thus providing further technical backing for the consortium.

One area of development that is of particular interest to these companies is the pro-

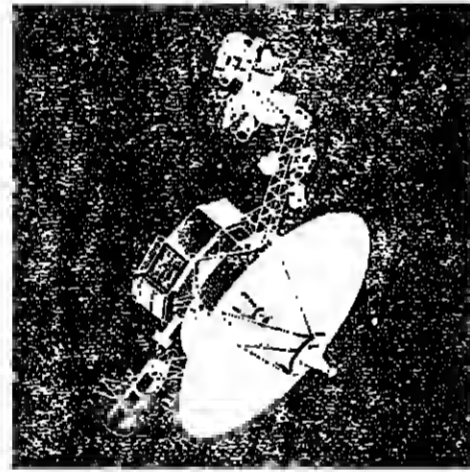
vision of "regional satellites" for communications in particular parts of the world—the supply not only of satellites but also of the associated ground infrastructure including receiving and transmitting stations, and even, if necessary, telephone and television systems where these do not already exist.

Also under development in Europe is the H-Sat, a heavy experimental satellite of about 900 kg, for launch aboard the Ariane in 1982. This is intended to be the forerunner of a large platform in space able to carry a variety of future television and radio communications payloads for direct transmission into homes or community antennae—enabling the dissemination of such programmes over a much wider area.

Beyond these, the ESA has its Advanced Systems and Technology Programme, designed to prepare future satellite systems. Ideas now being developed include the Stella experiment, aimed at exploring high-speed digital data transmissions via satellites and the Spine project (Space Informatics Network Experiment), designed to become operational next year, and aimed at experimenting with new methods of disseminating documents using high-speed digital facsimile equipment. The possibilities of video-phone conference facilities will also be studied.

It is regarded as vitally important that Europe develops its own data facsimile transmission systems—so as not to be left behind in the 1980s by developments in the U.S. There, Hughes Aircraft, probably the world's biggest manufacturer of satellites, and associated systems, is already at work on the programme of satellites for the Satellite Business Systems (SBS) group, a consortium formed by IBM, Comsat General Corporation, and Aetna Life and Casualty. Three satellites are being built, with first launch planned for mid-1980. The aim is to provide a domestic U.S. satellite system for private users (business, government agencies and other organisations) with large communications needs, giving them instantaneous data, facsimile and teleconferencing facilities from 1981.

Michael Donne



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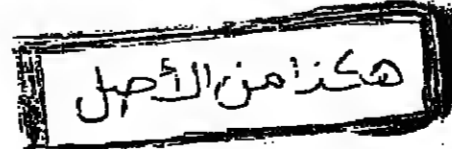
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## Reducing the cost of launchers

THE NEXT significant event in manned spaceflight is likely to be the first operational launch next year of the manned U.S. Space Shuttle, otherwise known as the "Manned Reusable Space Transport System." While budget cuts have obliged the National Aeronautics and Space Administration (NASA) to slow the pace of development of the Space Shuttle, it is currently planning to launch the Shuttle some time between next March and June, unless further budgetary delays occur.

The Space Shuttle is one of two major launching facilities for satellites and other space activities now under development in the Western world for the 1980s, the other being the Ariane conventional heavy launcher rocket now being built by the European Space Agency. This would be satellite users during the 1980s will have a choice of launching systems, and tough price competition is likely to develop as both systems come to fruition. Already, both systems are collecting customers world-wide, from countries, universities, telecommunications authorities and even commercial and industrial clients who are anxious to have their own satellites in the decade ahead.

In its mission plans for the 1980s, NASA envisages approximately 400 Space Shuttle flights, 40 per cent of which, or about 150 to 160 flights, will be assigned to Spacelab missions. Programmed design improvements to Spacelab are intended to widen its mission capability, and eventually enable it to stay in orbit in the Shuttle Orbiter for periods of up to a month, with free orbital flight outside from the Shuttle Orbiter vehicle also a possibility for long missions. Spacelab would thus represent the first stage of a modular space station in orbit, regularly visited by the Shuttle Orbiter and which could serve as the basis for the construction and assembly in orbit of large space systems for a wide range of tasks.

Europe's own rival to the Space Shuttle itself as a satellite launching system will be the Ariane, a heavy launching rocket intended to give Europe an independent capability for its own applications and scientific satellites, and to enable it to win a share of the substantial launcher market forecast for the 1980s—estimated at more

than 200 satellites of various kinds. Ariane, which is being developed by a consortium of European companies (the system integrator being Aerospatiale of France) is designed in particular to place satellites of up to 970 kg in a geostationary orbit (in which the satellite remains virtually in the same spot over the earth's surface, its orbital speed being geared to the Earth's own rotational speed). The aim is to have the Ariane operational by the end of 1980.

Four development flights in the qualification programme are scheduled for November this year and March, June and October 1980, and will be carried out from the Ariane launch site located within the Guiana Space Centre at Kourou, French Guiana. The first launch will carry a technological capsule and ballast; but the other three are intended to put various satellites into orbit, including Anisat (an amateur radio satellite), Meteosat-2 (the second flight model in the European meteorological satellite series), Apple (an Indian experimental communications satellite), and Marecs-A (the European maritime communications satellite).

In addition to these, the first six production Arianes have now been authorised, for a wide range of satellites in the early 1980s. These include Exosat (second half of 1981, for studying celestial X-ray sources); Marecs-B (first half of 1981, for maritime communications); Sirio-2 (possibly at the same time as Marecs-B) for meteorological data distribution in connection with the World Weather Watch, and synchronisation on a world scale of atomic clocks by means of laser echoes on reflectors placed on the satellite; ECS-1 (end-1981, the first operational European Communications Satellite); the French Earth observation satellite, SPOT; and a communications satellite in the Intelsat-V series.

The ESA says that Ariane will also be used for further launchings of satellites in the European Communications Satellite programme. The ESA believes that during the 1980s there will be at least 30 to 50 Ariane launchings, in many cases putting two satellites into orbit with one launch.

M.D.

SATELLITES III

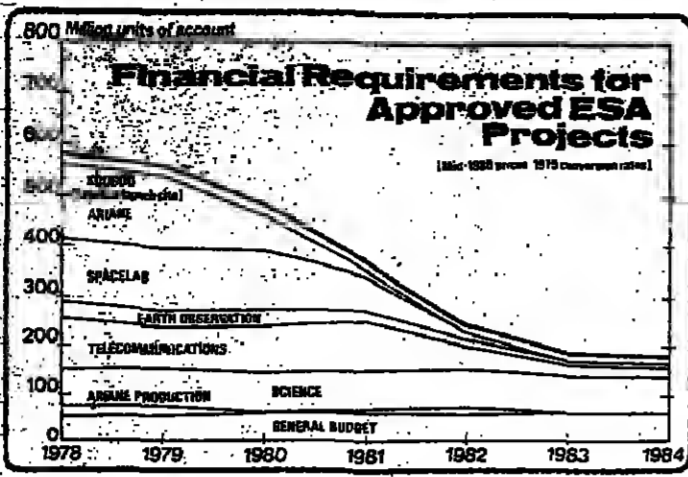
At the service of science

IT MAY seem a far cry from the peat bogs of Scotland to the sophistication of an orbiting satellite. But scientists at a research centre near Aberdeen are making good use of the high-powered cameras of one space research programme of the U.S. National Aeronautics and Space Administration, in mapping the peat resources of the Highlands and Islands.

The Macaulay Institute for Soil Research, an Agricultural Research Council laboratory, is buying photography on magnetic tape obtained by NASA's Landsat programme of earth resources surveillance. They use this colour imagery to guide their own flights in light aircraft. Their aim is to compile a data bank on an underexploited energy resource. A study this year, data bank has been christened MIDAS—Mire Information Data Acquisition.

Rarely do space research activities seem quite so down to earth as in their use in remote sensing of natural resources—unless one counts the creation of NASA's Skylab when it re-entered the atmosphere prematurely last month. But space activities which only a decade ago seemed remote from daily life are already familiar enough to be easily overlooked; for example, the trans-Atlantic telephone calls via satellites, distinguished by their slightly disconcerting pauses, and the "nightly meteor" pictures of Britain's weather report on BBC television in recent months.

Meteosat, Europe's contribution to two international meteorological research programmes—the World Weather Watch and the Global Atmospheric Research Programme—was launched into geostationary orbit late in 1977. This satellite, designed by the European Space Agency to serve the specific needs of Europe's meteorological offices, has three main missions. First, it is imaging the earth's surface and cloud cover simultaneously in three spectral bands at intervals of 30 minutes, using its telescope radiometer. Second, the satellite itself disseminates the image and other data from Darmstadt to the more remote meteorological offices. Third, it gathers environmental data by UHF



radio from ships, buoys, etc. and relays it back to Darmstadt. Initial performance has delighted the meteorologists and provided them with novel views of the earth's atmosphere—such as regular photographs of the moisture content of the entire atmosphere.

Currently, the biggest sector of spending by the European Space Agency (ESA) is on Spacelab. This is the manned space laboratory Europe is building to be carried into orbit by the U.S. Space Shuttle, and—unlike Skylab—to be retrieved and brought back for refitting after up to a month in space. Spacelab is a pressurised laboratory module about 4 metres in diameter and up to 12 metres long, within which two scientists will be able to work in a "shirt-sleeve" environment. In addition, the satellite will be able to top up to five "pallets" carrying larger instruments.

The first Spacelab payload—originally scheduled to be flown late in 1980, but likely to be delayed by problems with the Space Shuttle—has been designed as a multi-disciplinary demonstration of the versatility of the flying laboratory concept. From more than 2,000 responses the design experiments for Spacelab, a total of 76 were chosen by ESA and NASA in 1977. They include physiological experiments on the scientists themselves, such as studies of space sickness, a condition which has interfered with earlier space missions. It may be possible to find motions which counter any inclination towards space sickness on the part of a crew member.

Also aboard for the first flight will be a self-contained materials science laboratory, designed to perform 37 experiments in crystal-growing and the properties and behaviour of materials under gravity-free conditions. Whether or not the results suggest ways of refining more perfect materials, as space enthusiasts often suggest, they should certainly shed much light on the dynamics of materials during the formative stages of the earth and other planets, and of the earth's oceans and atmosphere today.

ESA is also building an orbiting X-ray telescope called Exosat, to investigate cosmic X-ray sources well beyond any interference from the earth's environment. It is designed to be placed in a highly eccentric orbit with an apogee of 200,000 km, so that it can accurately measure the size and structure of X-ray sources deep in space.

Scientifically, the project is a collaboration between 10 research teams in Britain, Holland, West Germany and Italy, together with ESA itself. But for the first time in an ESA/ESRO programme, ESA is financing a major scientific payload comprising two identical imaging telescopes, an array of proportional counters, and a spectrometer for studying detailed features of the X-rays. This arrangement arises because Exosat will be essentially an ESA observatory, feeding data to many scientists outside the 10 groups participating directly. The satellite is scheduled to be ready for launch in 1981, either by ESA's own Ariane or by a Thor-Delta launch vehicle.

Europe is also participating in NASA's most ambitious scientific project in space astronomy, the space telescope, a 2.4-metre aperture instrument designed to be carried aloft by the Space Shuttle. Scientists believe that the space telescope, designed for a 15-year life, will dominate space astronomy for the rest of the century. It will be accessible by Space Shuttle for repair and maintenance, and if necessary will be brought back to earth for a major overhaul. Thus the telescope will be kept at the forefront of scientific technique, just as if it were a terrestrial observatory.

The Space Telescope is scheduled for launch in 1983. In return for its work on some of the instrumentation and the solar power system, ESA is guaranteed 15 per cent of the observing time available. As it points out, this share exceeds the entire clear dark time available on a ground-based telescope. The space telescope is expected to offer astronomers an order-of-magnitude improvement in sensitivity, resolving power and spectral range over present-day instruments.

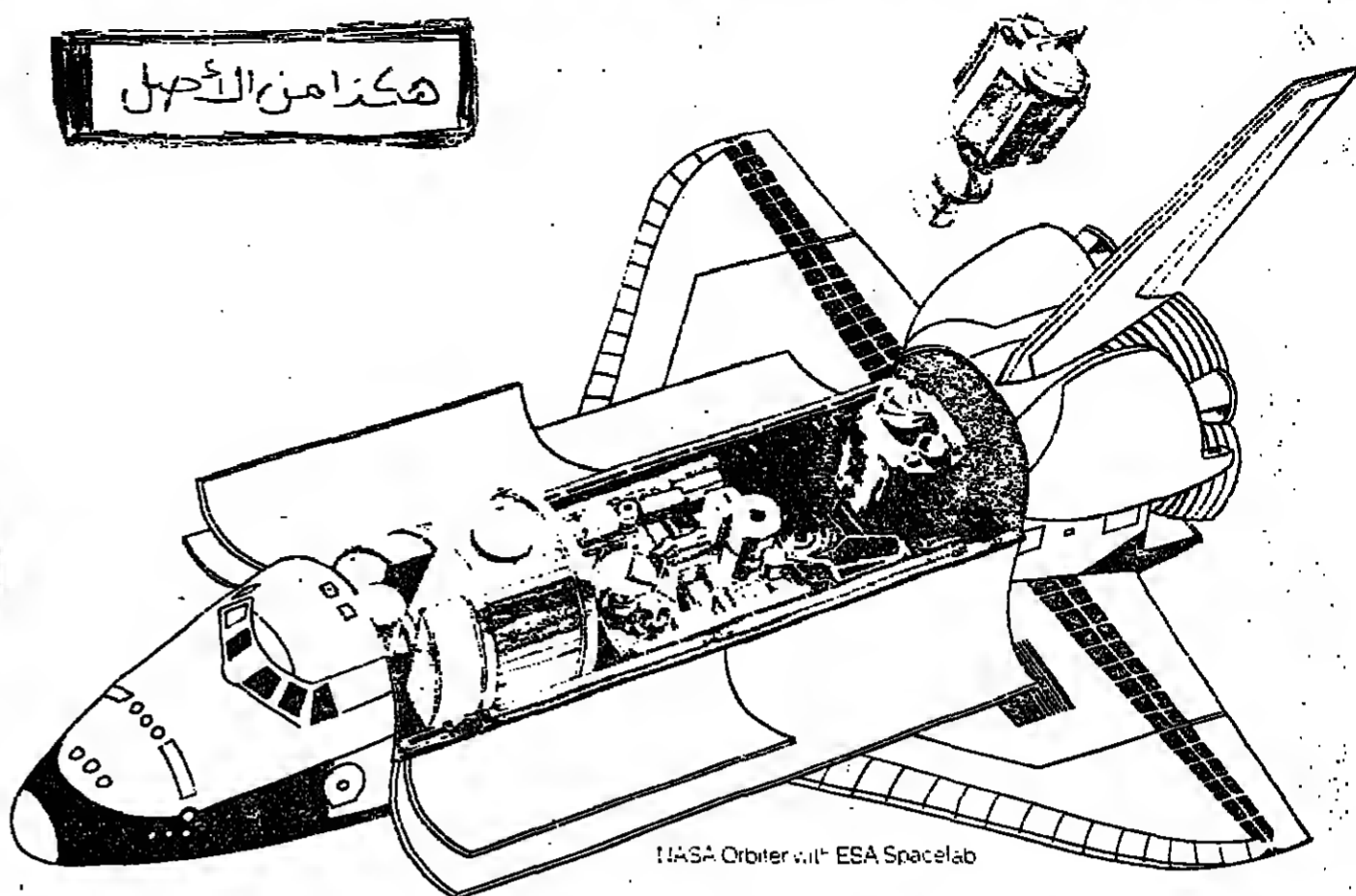
ESA, in its present form, came into existence in 1975, when the original ten member states voted that the new agency should take over the rights and obligations of two precursor organisations, ESRO and ELDO, and responsibility for the Ariane launch base at Kourou in French Guiana. At present its budget, as can be seen from the accompanying curves of financial requirements for approved programmes, is distributed heavily towards the development of an independent European launch capability, and the application of space, especially in telecommunications. But Mr. Roy Gibson, ESA's director-general, has said that ESA is "intent on preserving and if possible expanding its scientific programme, and there are indications that ESA member states will support such an expansion."

A recent survey of financial planning by ESA suggests that an annual budget of \$40m Units of Account would result in good continuity in European programmes. If this were to fall to \$20m Units of Account, however, ESA would have to reduce its space activities considerably.

David Fishlock  
Science Editor

Room for Rent.

هكنا من الأهل



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MCDONNELL DOUGLAS



Power stations in space

IN AN office in Cambridge, Massachusetts, a decade ago a British-educated engineer warned to his theme that the development of solar energy was "the most sophisticated way we can use energy." The popular view, said Dr. Peter Glaser, is that solar energy is free and all we have to do is to catch it. In fact, even quite simple uses such as solar stills are very difficult to design satisfactorily.

Today Dr. Glaser is identified worldwide as the chief proponent of the most ambitious of all schemes for harvesting solar energy. If President Carter's declared goal of obtaining 20 per cent of the U.S. nation's energy directly from the sun is ever to be realised, it is likely that a large proportion must come from the solar power satellite.

The solar power satellite (SPS) would be geostationary—that is, placed in orbit high enough to remain above the same spot on the earth's surface, as for example telecommunication and broadcasting satellites must do. Its acres of solar cells would be constantly illuminated by the sun. The electricity (direct current) generated would be converted to microwave frequency so that it could be beamed 23,000 miles back to earth. Here it would be caught by great "radio-telescopes" and converted into low-frequency alternating current to enter the national electricity grid.

Dr. Glaser, now a vice-president of Arthur D. Little, the engineering consultants, developed this idea from work his company was doing at the start of the U.S. space programme on the thermal properties of materials in space. He built a solar furnace, to generate very high temperatures, but became frustrated by the fact that the sun would not shine for long enough

to get things done. In 1968, he put forward on behalf of his company a tentative scheme for the SPS. Slowly, as the U.S. space programme has declined in public and political interest, the SPS concept has matured into a study, with \$5.6m of U.S. Government funding allocated for 1980. But a Bill before Congress aims to raise this to \$25m, and the "windfall" tax on U.S. oil companies may provide still more generous funds.

The present goal of the SPS enthusiasts is a prototype SPS designed to yield about 5,000MW of electricity—more than any thermal power station on earth today. The cost, according to the U.S. National Aeronautics and Space Administration, is currently put at about \$25bn—the cost of the Apollo programme to put a man on the moon.

As might be expected, the U.S. aerospace industry is enthusiastic about the idea, not least because if successful it would represent a tenfold expansion in man's use of space, for one single purpose. Such companies as Boeing Aerospace (Crumman Aerospace, Lockheed Missile and Space, Martin-Marietta Aerospace and McDonnell Douglas Space and the Sunset Energy Council, the Washington-based organisation headed by Dr. Glaser, which aims "to foster the development of solar power satellites for the purpose of providing an inexhaustible energy source for the public benefit."

The American Institute of Aeronautics and Astronautics has concluded that a level of spending of about \$30m a year for the next five years would be appropriate for advancing the technology to the point where a firm design for a prototype SPS might be attempted. At the moment there are, it says,

"still too many promising but unexplored technical options." Many of these have been outlined by Dr. Glaser himself, most recently late this spring at the 16th Space Congress at Cocoa Beach, Florida, close to Cape Canaveral. He claimed that the long microwave "cable" to earth could be at least 55 per cent efficient, with the prospect of improving to 70 per cent. He also claimed that the lifespan of an SPS would be at least 30 years—possibly 300 years.

As he envisaged his "reference design" of SPS, it would consist of "solar sail" in geostationary orbit, focused on a microwave aerial on the ground. Sunlight would be harvested by a rectangular array of silicon or gallium arsenide solar cells, measuring an astonishing 10 km by 5 km. The solar cells would produce direct current, which would be converted by microwave of a wavelength of about 10 cm—chosen to minimise radio-frequency interference on earth. These would be transmitted from a flat circular aerial about 1 km in diameter. To allow for the spread of this microwave beam on its long journey, the receiving aerials would be ten times the diameter of the transmitter.

Scale

Some idea of the scale of operations required if the SPS should be accepted as a U.S. national power production project was also offered by Dr. Glaser. To assemble the huge engineering structures in space, the project would need not only an advanced version of the Space Shuttle scheduled to make its debut in the coming months, but also the development of a large "space freighter." This craft would be capable of orbiting a payload of up to 500 tonnes, as is Boeing's proposed heavy-lift launch vehicle, for example. In effect this would be an orbiting warehouse, stocked with the construction materials and such machine tools as automatic beam welders. He envisages a construction team of 550—small by terrestrial power station standards but still very large by any standard of space activity. Ten launch sites for shuttles and space freighters would be needed to put this team into orbit and keep it serviced. Once assembled, however, it is envisaged that the

SPS would be operated by remote control from the receiving points on the ground.

Not surprisingly, there are plenty of sceptics and even dedicated opponents of the SPS. One objection comes from those opposed to all centralised control of electricity, whose attack hitherto has focused particularly on nuclear power as the new source of centralised foci; are raised by those who see it intruding in new and not necessarily benign ways into man's environment. The main inefficiency—conversion of sunlight to electricity and its subsequent conversion to microwaves—stay far out in space, so "thermal pollution" is well away from the atmosphere. But problems could still arise from the microwave beams, not least if their focus should shift from the receivers on to a city. Moreover, the rocket exhaust from the immense number of space launches from the ten launch sites could well introduce new atmospheric pollution problems.

Dr. Robert Froesch, administrator of the National Aeronautics and Space Administration (NASA), was sufficiently wary of the SPS concept to quash any idea of lobbying on NASA's part for an early start to the project. In Europe a few months ago to discuss progress on the Space Shuttle, Dr. Froesch admitted that he was "rather sceptical" about several aspects. He wanted to know more about the engineering problems, the environmental effects and, above all, the economics.

"I certainly don't understand the economics and I'm not sure that those who talk about it do," NASA's current estimates, he said, suggest that electricity from an SPS would be no cheaper than an equivalent amount of nuclear or coal-fired plant, even though the fuel would be free. And the project would have the disadvantage of requiring all its capital at once, for a very large tranche of electricity. Figures NASA has been conjuring with are \$50bn to set up the project and another \$25bn to build the first SPS. But even these figures made such assumptions as solar cell efficiencies of 17 per cent—and we've barely done that in the laboratory."

David Fishlock



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THE ARTS

Television

Out of a summer sky by CHRIS DUNKLEY

Having roundly berated the broadcasters not once but twice recently for the trashiness of their summer season and the absence of fresh material...

True, the quality of some of the new programmes which have started reaching the screen all of a sudden leaves a lot to be desired...

The most significant contribution to it so far has been Gossip From The Forest, the first in a series of Granada plays under the umbrella title "Screenplay"...

Sporting Club, and Blue Remembered Hills have all been outstanding productions. Gossip From The Forest was not one of his best...

Like so much of his work, Gossip From The Forest, evoked a strong and moving atmosphere, particularly in the opening half hour...

One of his greatest achievements in this film was to convey, without any overt reference to the subject, the way in which lack of magnanimity in victory on the part of the French and British contributed to the move towards a second world war...

The same company's Merryport ought to have been another work to relish since its makers also have impressive records: producer Denis Mitchell is renowned for Morning In The Streets and other documentaries...

Sure enough there was a sharp poignancy about their study of a moribund coastal town on the Solway Firth. But it was spoiled by Gosling's periodic naivety, as when he said Maryport had a "human quality" (which town hasn't?)...

Granada's third offering, This England, was a fascinating little programme about deaths in the long running soap opera Coronation Street and public reactions to them. It would have been even better if it had allotted slightly less time to one character (Ernie Bishop) and slightly more to the others...

Watching it is a small habit-forming indulgence akin to picking the teeth. Another new ATV series has a title which, for reasons best known to the producers, has been chopped down from writer Leslie Thomas's funny and explanatory Tropic Of Ruislip to the unfunny and confusing Tropic Sex and social climbing in the dormitory suburbs is a rich area for comedy...

The most enjoyable BBC programme of the week was The Great Tiger Moth Air Race. Being a very straightforward and completely unpretentious record of the gathering together and "racing" of 55 old Tiger Moth biplanes from Hatfield in Strathallan, it must have presented producer Bernard Clark and director Laurie Coat with an extraordinary logistical problem...

There was some glorious footage of English countryside with the bright and boxy aeroplanes—like something that had chattered in from an animated cartoon—in the foreground. But the real attraction of the production came from the enjoyment and the camaraderie of those involved. In this respect is brought to mind two other oddly enjoyable programmes, both musical: The Great Double Bass Race about an astonishing rally in the Isle of Man, and Nymphs And Shepherds in which the original members of the children's choir who had made the famous record were re-assembled as adults...

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Festival Hall

Gala Ballet Season by CLEMENT CRISP

The week of pirouettes and fouettés which started on Monday at the Festival Hall might well pass itself off as "All you ever wanted to know about classical ballet and didn't like to ask your doctor." It is an omnium-gatherum of choreographic clichés, redeemed by a couple of exceptional performances...

Miss van Hamel, whom we saw with American Ballet Theatre a couple of years ago, is a joy. She is the Odette of the evening, discreetly partnered by Kevin McKenzie, and her serene, creamy style argues an interpreter deserving of far better things than the surroundings in which she finds herself. Her beautiful line, her musicality, the respect she shows the choreography, are a pleasure to watch, and two other items in which she appears confirm her as an artist of exceptional quality...

These look like a tribute to Isadora, and Miss van Hamel pours into them glories of long-pulsed, ecstatic dancing of the greatest beauty. The first of these three Stryabin piano studies seems done in a single magnificent phrase; the other two are no less compelling as she rushes, or pauses, filling each with dancing rich in tone, subtle in rubato. She is an artist to treasure. Galina Samsova is seen as the Aurora of the evening, and also returns in her special version of Le Corsaire. In both, the sensitivity of her dance style, its sweetness and generosity, the lovely simplicity of her arms, take one far from this trumpery occasion to a region of noble eloquence of expression. In Beauty Kevin McKenzie displayed a clean, unaffected style; in Corsaire Peter Schaufuss, not well



Martine van Hamel in "Tattooed Lady"

matched with Samsova, could Bhakti duet — its eclecticism still show a brightness of virtuosity that told of true classic understanding. For the rest, Malina Gielgud, Marjorie and Tetsumaro and Jonathan Kelly were powerful. Idiomatic advocates of Boccaccio's blighted couple and for the curried tosh of Bejart's Don Quixote's duet.

Stratford auditorium plan shelved

A £600,000 plan to give the Royal Shakespeare company a third auditorium at Stratford has been shelved—because the company can't raise the cash. The new auditorium, which was to be converted from the shell of the burnt-out Memorial Theatre, was scheduled to open in November. The opening production of the new auditorium was to have been All's Well That Ends Well, with Judi Dench and Peggy Ashcroft. This has now been postponed.



Hugh Burden in "Gossip from the Forest"

Albert Hall/Radio 3

Carter, Lutoslawski

Monday night's three-part Prom was divided between three living composers from three different countries. Elliott Carter, Witold Lutoslawski and Michael Tippett. Tippett's A Child of our Time dates from the war years; but the works by Carter and Lutoslawski were both recent, composed respectively three and four years ago. Elliott Carter's Symphony for three orchestras has been reviewed already on this page, after its premiere in New York in 1977, and after its first British performance last March. Both my colleagues have remarked on the richness and (for Carter especially) the sensuous and dramatic quality of the score—and on its complexity. Even after three hearings, this short but exceptionally dense canvas, a trawery of scurrying melodies and shimmering colours, does not offer up its inner life easily. Crumb's Star Child, heard at last Friday's Prom, puffed up perhaps five or ten minutes' worth of ideas into the space of 40 minutes; in his Symphony, Carter seems to have compressed the seeds of an hour of music into one quarter that time.

Compressed: but for all that, given free rein to a poetical vision whose textures and dramatic curves are not difficult to perceive—the very speed at which the detail of the argument dashes past forces the attention to the broad surface and line. The scene-changes, taken individually, like frames of a film, are breathlessly fast; but seen through half-closed eyes they blend, give an impression of space and distance. Sometimes they hover, almost out of sight, at bird's view; at other times they rush close across the face of the music like driven clouds. The final pages are perhaps still the most satisfying: from its highest point the piece takes breath, falls in a series of powerful plunges, the last a dizzying dive into darkness and silence. The BBC Symphony Orchestra's performance under David Atherton has gained much in strength and confidence in four months—and by happy chance they have even found

in their own ranks a young trumpeter who can give with perfect confidence the opening solo which last March the principal trumpet found too difficult to play. Lutoslawski's Les espaces du sommeil is a setting for baritone and orchestra of a poem by Robert Desnos. It is a nocturne which makes its effect (in vivid contrast to the Carter) with simple, economical brush-strokes of colour—a pattering of pizzicato strings; a curl of flutes; and always a profusion of characteristic swirling shapes, of flute and clarinet, celesta and harp, underpinned by dark string chords. There is a busy and vivid climax, from whose last thunder-clap the solo voice (rather predictably) emerges floating still and plaintive. A pretty, civilised piece that offers the reassurance of recognisable character, secure technique, and few surprises. One only perhaps, the quiet close to the music, like that of the poem is, briefly, and unexpectedly, disturbed. DOMINIC GILL

Theater des Westens, Berlin

Wie einst im Mai

Following the box office success of Cabaret (an average thousand visitors a performance), Karl Vibach brought back the tradition of Berlin Operetta to the newly renovated and reopened Theater des Westens. The public throughout Germany has waited so long for a revival of Walter and Willi Kollo's 'Wie einst im Mai' (Once in May) that the production will probably run the entire summer to accommodate the season's tourists. It could even turn out to be one of West Berlin's biggest commercial hits. It is not well enough known that, back at the turn of the century, Berlin stood just behind Paris and Vienna in the field of operetta. The magnificence of Jacques Offenbach and Johann Strauss was never equalled, but three composers—Paul Lincke (Frau Luna), Jean Gilbert (Die heusche Susanna), Walter Kollo (Wie einst im Mai)—did match their contemporaries as a trio of diverse and complementary talent. Hopefully, the Theater des Westens will produce all their important musical compositions in the not too distant future. Once in May first appeared as a 'Passé mit Gesang' in 1913, a

fortune heads for ruin); the splendid ballroom of the "Kroll-Oper", where the daughter is to be matched with a blue-blooded wastrel; and a garden-swing in May, supplying the motif for a nostalgic love story that spans three generations. Another is an ensemble of musicians and performers gradually learning the ropes in blending acting, dancing, and singing in a unified whole. Vibach is still leaning too heavily on names and gimmicks to draw a crowd, but Angela Mithel and Wolfgang Ziffer (as Ottilie von Henkeshofen and Fritz Jüterbog, the ill-fated pair) are natural and unassuming in letting the story tell itself without the usual upstaging common to musicals in subsidised theatres. They simply make the show work. The high point of the evening is a song: Walter Kollo's "Das war in Schöneberg im Monat Mai"—a Berlin chanson every old-timer here can sing by heart since first heard in 1913. One year before, in 1912, Kollo composed the popular "Unter'n Linden, unter'n Linden" and the operetta it appeared in, Filinzuber, ran non-stop for over 200 performances. He became the city's troubadour. RONALD HOLLOWAY

rather wish that Christopher Biggins, who directs this arch tripe of Bernard Shaw, would issue his actors with loud trailers. There really seems little point in going as far as he does to contradict the natural setting—gulls and crashing waves—on sound effects to establish that we are on the terrace of a seaside hotel in this lunchtime production—without going even further. When you bear so feckless a line as "It's so jolly to be reckless" pumped out by Philippa Gail, the laughter derives from relief at bearing a full sentence, not necessarily from recognition of a witty quip. That said, Mr. Biggins does very well under the ridiculous circumstances. The trivial involves two married couples who have exchanged partners in the time-honoured custom of ship-board romance. Desmond MacCarthy complained that the 1927 Everyman production took little account of the comedy's artificiality. He would not complain on this ground in Regent's Park: the square dance is briskly entered upon and the performances, especially that of Robert East as the worldly, flirtatious moralist, Gregory Lunn, are admirable. Geoffrey Colville is unusual casting for the role of a romantic Englishman for whom passion is nothing without guile. And as his temporary lover, Jo Ross, contributes a grotesque *hautecouture* that will be all the more effective when she learns not to tread on her own dress. There can be only one upshot: a shared table at dinner. En route, there is a goodly profusion of sharp mots on the subject of married life, and Mr. Biggins is not slow to point up CBS's pertinent remarks on the hypocrisy of those who invoke moral principle as an excuse for actual conduct. MICHAEL COVENEY

Open Air Theatre, Regents Park. Overruled

I rather wish that Christopher Biggins, who directs this arch tripe of Bernard Shaw, would issue his actors with loud trailers. There really seems little point in going as far as he does to contradict the natural setting—gulls and crashing waves—on sound effects to establish that we are on the terrace of a seaside hotel in this lunchtime production—without going even further. When you bear so feckless a line as "It's so jolly to be reckless" pumped out by Philippa Gail, the laughter derives from relief at bearing a full sentence, not necessarily from recognition of a witty quip. That said, Mr. Biggins does very well under the ridiculous circumstances. The trivial involves two married couples who have exchanged partners in the time-honoured custom of ship-board romance. Desmond MacCarthy complained that the 1927 Everyman production took little account of the comedy's artificiality. He would not complain on this ground in Regent's Park: the square dance is briskly entered upon and the performances, especially that of Robert East as the worldly, flirtatious moralist, Gregory Lunn, are admirable. Geoffrey Colville is unusual casting for the role of a romantic Englishman for whom passion is nothing without guile. And as his temporary lover, Jo Ross, contributes a grotesque *hautecouture* that will be all the more effective when she learns not to tread on her own dress. There can be only one upshot: a shared table at dinner. En route, there is a goodly profusion of sharp mots on the subject of married life, and Mr. Biggins is not slow to point up CBS's pertinent remarks on the hypocrisy of those who invoke moral principle as an excuse for actual conduct. MICHAEL COVENEY

What does the future hold for Korea? Will the development momentum be maintained? What are the problems and potentialities of doing business in Korea? What is the view of the world financial markets on the outlook for the developing industrial countries? These and many other questions will be examined and discussed at 'Korea in the 1980's' a conference to be arranged in Seoul on September 12 & 13, 1979 by the Financial Times and the Korean Traders Association. Among the speakers will be Minister Hyon-Hwack Shin, Deputy Prime Minister and Minister of Economic Planning, Seoul; Sir Roy Denman KCB, CMG, Director General, External Relations, Commission of the European Communities; Minister Kim Won Ki, Minister of Finance, Seoul; The Hon William Gleysteen Jr, United States Ambassador to Korea; Mr Choong Hoon Park, Chairman and President, Korean Traders Association; Professor Noritake Kobayashi, Keio University, Japan. If you, or your company, have interests in Korea, 'Korea in the 1980's' will give you a most useful insight into the future of this important area. For full details of the agenda, and registration procedure, complete and return the coupon below without delay. To: The Financial Times Limited, Conference Organisation, 'KOREA IN THE 1980's', Bracken House, 10 Cannon Street, London EC4P 4BY. Name: \_\_\_\_\_ Company: \_\_\_\_\_ Address: \_\_\_\_\_ Tel: \_\_\_\_\_ A FINANCIAL TIMES CONFERENCE

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Wednesday August 1 1979

Sterling and the CBI

THE VERY SHARP correction in sterling in the currency markets yesterday actually provoked a small rally in the equity market.

The risks

It is notable, however, that the CBI in its economic assessment does not call for any change in Government policy to relieve present pressures; and indeed substantial relief still seems unlikely.

ties may be relieved of a potential dilemma. The nature of that dilemma is made clear by the CBI survey. The UK economy is at present rounding an awkward corner.

Fundamentals

These pressures will be much more easily sustained if the fight from the dollar now abates, and if credit demand in the UK—especially consumer credit demand—falls, as is expected, to a more normal level within the next few weeks.

Awkward corner

This is very important for sterling in particular, because the pound is peculiarly exposed to changes in sentiment about the dollar. Because of our inflationary problems, the monetary authorities are much more reluctant to intervene in the exchange markets than those in other strong-currency countries.

The leadership of India

INDIA IS an immense and diverse country which, somewhat like the United States, looks to its head of government for strong leadership. The sharp communal divisions between Muslims and Hindus are matched by possibly even sharper conflicts between the multitude of Hindu castes and those 100m Harijans (Untouchables) who have no place in the caste system.

Image

Jawaharlal Nehru was able to establish a sense of national identity beyond the particular claims of caste or religion by pressing the common cause of independence against the British. His daughter, Mrs. Gandhi, was 'Bataji' or Mother to many Indians during her Premiership. She created a reputation across India as champion of the interests of the poor and the minority communities.

Premier, tries to enlist the support of Mrs. Gandhi, his former opponent whom he has attempted to put on trial on criminal charges in an abuse of democratic procedures. The comforting feature should be that the economy of India is basically in sounder shape than most Indians seem to think.

A favourable economic situation does not make up, however, for the absence of strong national leadership in a country now more conscious of its divisions than its success. There are a number of constants around which the more enduring post-war administrations have stood their ground.

Successor

Though the representative of the Harijan community, he is not so partisan in support of his immediate followers as Mr. Charan Singh has been of the prosperous northern farming community from which he gets his strongest backing.



The Commonwealth conference risks becoming a dialogue of the deaf over Rhodesia. But there is some small room for hope . . .

Glimmers amid Lusaka's gloom

THE Commonwealth conference that opens here today will be dominated by Rhodesia, and the air of resigned gloom hanging over the majority of the delegations during their arrival here suggests there is little cause for optimism about the outcome.

The Rhodesian problem has been around for so long, and its history has been so depressingly consistent. It is 18 years since the search for a long-term solution began with the 1961 constitutional conference. It is 14 years since Ian Smith's unilateral declaration of independence.

On an even more basic level than this, other remarks by the Prime Minister have led African leaders to the belief that Mrs. Thatcher, more than any other British Prime Minister over the past two decades, is unsympathetic to their problems, to their aspirations and to their fears.

They are coming here hoping for a constructive dialogue, ready both to listen and to learn, and ready to talk to anyone who in their view can help to resolve the issue. It is not ruled out that this process of consultation will include a meeting outside the framework of the conference with other or with members of the Patriotic Front leaders.

Mr. Josua Nkomo and Mr. Robert Mugabe. But the atmosphere into which Mrs. Thatcher flew on Monday night is hardly conducive to constructive dialogue, there is deep hostility to her personally. On the morning before our Prime Minister arrived, President Kaunda of Zambia delivered himself of a highly personalised and public attack. But he was saying nothing more in public than African leaders have been saying in private. Theo yesterday, the Lagos Government announced that it was nationalising British Petroleum's interests in Nigeria. The move appears to have been timed quite deliberately to coincide with the opening of the Commonwealth conference.

The root cause of this hostility can be traced to the simple fact that Mrs. Thatcher has always taken a far more favourable view of the Rhodesian internal settlement and of the April elections than did her predecessor, Mr. Callaghan.

But the Prime Minister has compounded her problems by a series of public utterances which have created great antipathy in Africa. The most important of these was her recent statement in Australia that she very much doubted whether the British Parliament would renew Rhodesian sanctions in November.

It will be a dangerous atmosphere, for Mrs. Thatcher has as strong a didactic streak in her as the Africans. The result could be a mutual attempt to educate the other in the realities of life which might merely end in mutual incomprehension and raised tempers.

different reality in Rhodesia than do the African states. Take one key example of this wide cultural and intellectual divide: the April elections. Mrs. Thatcher, and a substantial body of Tory opinion in Britain, saw the April elections in Rhodesia as a major breakthrough. Bishop Muzorewa, a moderate leader who has never resorted to arms, won enthusiastic backing from a majority of blacks. The 64 per cent turnout was higher than people had reason to expect. Journalists and official observers reported widespread enthusiasm for the electoral process and for the Bishop.

The Patriotic Front leaders, who were backed by Communist powers, had been invited to lay down their arms and participate, but had refused to do so. To a lot of people in Britain, Bishop Muzorewa acquired through that election a legitimacy that Ian Smith never had. Two former Foreign Secretaries, Lords Home and George-Brown,

went on record as saying that the six principles which have formed the basis of British policy since UDI had now been met. Mrs. Thatcher has made a number of acid comments comparing the fairness of the electoral process in Rhodesia with the lack of democracy, as she defines it, elsewhere in Africa.

Seen from Africa, and the perspective of men who have been fighting for 20 years for the liberation of Rhodesia, the elections were a carefully stage-managed fraud. The constitution under which they were held was designed to retain white hands on the levers of power. Above all, both the elections and the constitution left a prominent role in politics for Ian Smith, now Zimbabwe-Rhodesia's Minister without Portfolio, and a man whom African leaders feel from bitter experience they can never trust.

In the African view, it was out of the question for the Patriotic Front to accept the Rhodesian invitation to lay down arms and take part in the elections. As they see it, it is the "freedom fighters" who forced Mr. Smith to make

concessions. The war must go on until he agrees to a genuine majority rule settlement which meets their definition of "free and fair." "Freedom" means African leaders' liberation from white colonial rule. Rhodesia's constitution, drawn up by a régime in which Ian Smith was a dominant force, does not measure up to these standards.

But the danger that the dialogue between Mrs. Thatcher and the African states will turn into a dialogue of the deaf only adds a new and complicating dimension to an already intractable problem.

The only real solution to the Rhodesian problem is one which will also bring an end to the war. That would require the acceptance of all or most of the five front-line states, one or both of the Patriotic Front leaders, almost certainly the Nigerians and of the régime in Salisbury. Within that long list, there are enough personal rivalries, long histories of distrust and mutual suspicions to abort the best-laid plans.

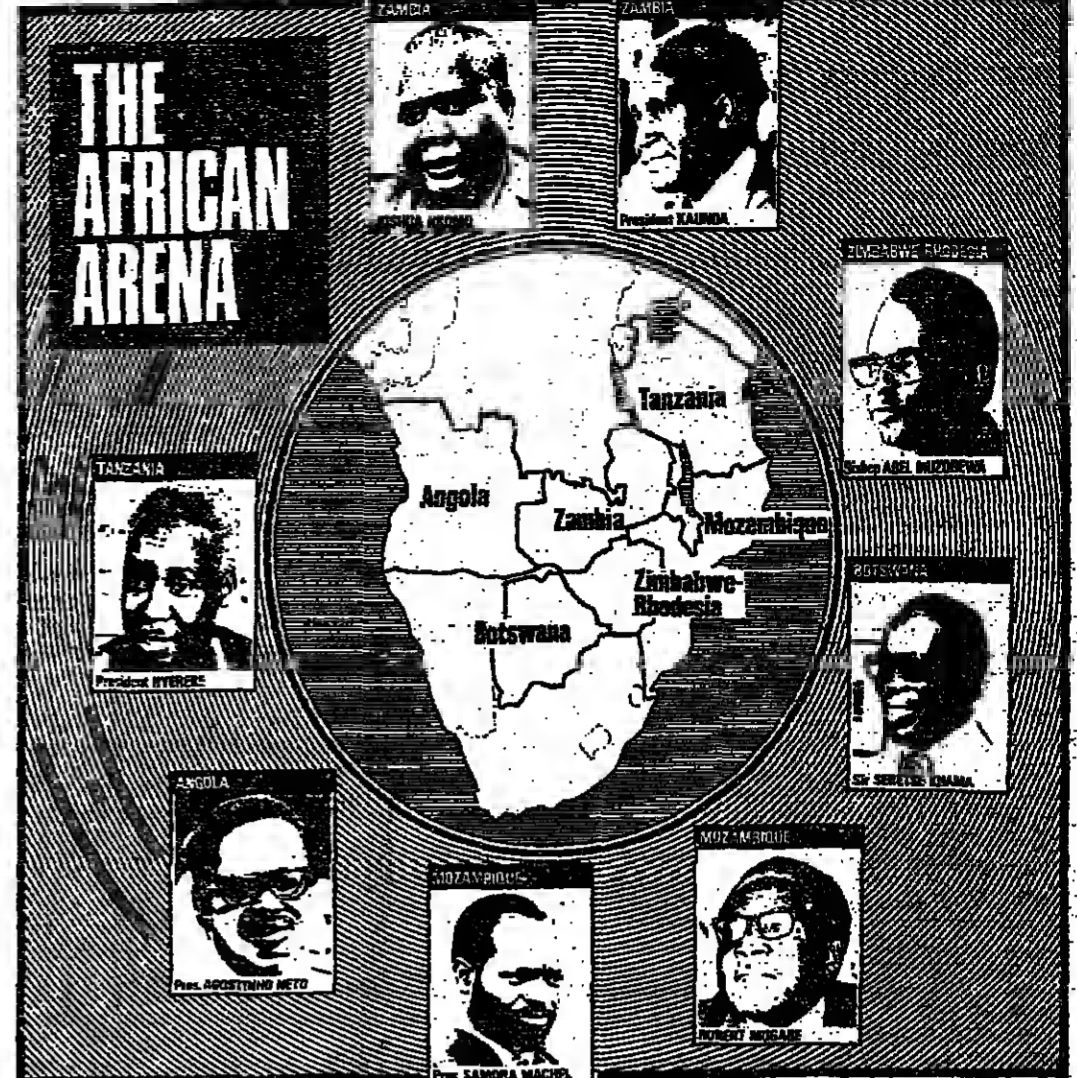
Last autumn, for instance, a meeting of the five front-line leaders broke up in acrimony. The Nigerians and the Zambians had engineered a secret meeting in August between Mr. Nkomo and Mr. Smith. Mr. Nkomo's fellow leader of the Patriotic Front, Robert Mugabe, voiced bitter suspicions both about Mr. Nkomo's ambitions and President Kaunda's role. The Nigerian initiatives strained the friendship between President Kaunda and President Nyerere—and the Tanzanian leader in turn has little time for Mr. Nkomo. Relations between Tanzania and Nigeria, which had played a key role in the meeting, were for a time sour.

The picture presented so far in this article is a gloomy one. In the run-up to the Lusaka meeting, Mr. Malcolm Fraser, the Australian Prime Minister, has taken on himself the mantle of honest broker, trying to work out a compromise formula which can be accepted at Lusaka.

However, his talks in Lagos at the weekend with General Obasanjo, the Nigerian leader, appear to have produced no

softening in the Lagos Government's hardline stance. Only hours after Mr. Fraser's departure, the Nigerians moved against BP.

There are, however, some other straws in the wind. It is just possible that the multi-racial Commonwealth of nations will break through the rhetoric, will break down the distrust and mutual misunderstanding that have haunted Rhodesia for so long and will emerge with an agreed compromise approach to a fresh initiative. Here are some of those straws which people are grasping—more in hope than expectation.



Smith is still wielding far more power behind the scenes in Salisbury than had earlier been thought, particularly in the conduct of the war.

Disillusion with the Bishop may be a rather negative area of common ground from which to launch an initiative, but at least it is common.

The economies of the front-line states: these states are paying a high price for what they see as their stand on principle. The economies of Zimbabwe, Mozambique and Botswana, the countries from which the guerrillas operate, are being devastated by the conflict with Rhodesia. Tanzania, too, has problems of its own to solve following its military intervention in Uganda which has proved a severe drain on the economy and is dominating much of President Nyerere's time.

The leaders of all these states need a settlement—but that does not mean that they are ready to sacrifice upon a sacrifice, over the years, in their fight against Salisbury. They are about to capitulate now.

Among the front-line states, no one needs a settlement more than President Kaunda of Zambia, chairman of the Commonwealth conference and host to the meeting.

His capital city has less than 100 miles from the Rhodesian border, an estimated 12,000 of Joshua Nkomo's guerrillas are living in and off his country; the shops are without many basic commodities; the economy is lurching from crisis to crisis and Zambia is dangerously dependent on Rhodesia for its vital railway imports and export routes.

If this really is the "last chance" for an internationally negotiated Rhodesian settlement, there could be no more fitting venue for the Commonwealth conference. For the next eight days, representatives of the 39 nations will be viewing the Rhodesian crisis from the front line.

As Mrs. Thatcher will find, it presents a very different view from that of the last Commonwealth conference 'venue'—London.

MEN AND MATTERS

Weeks takes the cake

Sir Hugh Weeks, now aged 73, was the star of yesterday's birthday celebration for 21 years of the CBI's industrial trends survey. He was chairman of the economic policy committee of the Federation of British Industry, as the confederation was then called, in 1958 when the survey was introduced. The CBI had baked a cake to mark the anniversary. Weeks blew out the candles.

He was one of the key influences in converting the FBI to the idea of forward planning for private industry—an idea that emerged somewhat bruised by Maundling's aborted dash for growth. The survey was part of the same experiment, having been started when the Board of Trade asked the FBI for information about industrial performance, and the FBI had none to give.

Yesterday, after he had blown out the 21 candles, Weeks reminisced about how the original surveys only published the present position reported by

companies, for fear the forecasts of expected change would become self-fulfilling. He also pointed out that over the years the survey had proved most accurate in its forecasts of investment trends.

All of which is hardly the most encouraging news in the light of the doom and gloom in yesterday's survey. He stressed the first downturn in investment plans for some time due not to the present position reported by companies, but to their fears for the future.

Rough reportage

The philosophical attitude of American financiers to straightforward attacks on their professional integrity never ceases to surprise me. Articles that would leave British counterparts shouting hoarsely for their legal lawyers seem to leave them unmoved.

The latest edition of the U.S. magazine Institutions Investor carries a story on the "mid-life crisis" of security analysts. It puts the finger in no uncertain way on Peter Marcus, who fell from the top position in his New York stockbroking firm Paine Webber (Mitchell) Hutchins after six consecutive years as No. 1.

On the telephone from New York, Marcus said it had never occurred to him to sue anybody. "Sure, it can't help but hurt me," he said. "But I don't think about it. I've got better things to worry about."

Iona touchdown

There is a mystery about the fate of Iona since Sir Hugh Fraser paid £1.5m to buy the Hebridean island for the nation two months ago.

the late Lord Fraser, has turned it over to the Scottish Office to make arrangements for the island's continued welfare. "We don't know what's happening," Sir Hugh's assistant said yesterday. "It's out of our hands."

The Scottish Office was no wiser. Its Iona man had gone off to the island and left no word in Edinburgh on what, if anything, had been decided.

Some light may be thrown on the issue today. Sir William Lithgow, the former shipyard owner who is Chairman of the Iona Cathedral Trustees Appeal, has borrowed helicopters from BP to take "key members of the world's Press" to look at the island. Our man will naturally be among them.

Two bishops and the Moderator of the General Assembly of the Church of Scotland are also being airlifted in—presumably to pray for guidance.

Word in the ear

There is a resurgence of the Victorian custom of listening to books being read aloud after dinner. But nowadays, the readings issue from a tape recorder. This week, a £100,000 advertising campaign has been launched on Thames TV by so-called "cassette books."

It is the latest move in a campaign to sell taped literature to a mass market. Although the EMI offerings include Charlotte Bronte, they are in general aimed at a far more popular market than any earlier ventures. "We have sold 25,000 packs of James Herriot reading selections from his books," says Jigga Dunn, an American who is in charge of production.

How are the booksellers reacting? The two-cassette packs, with a running time of up to three hours, are sold in boxes made up to look like actual books. It seems that very few individual booksellers are yet willing to sell them—and perhaps because books are zero-rated for VAT, whereas cassettes attract VAT, and some booksellers cannot face all the

unfamiliar arithmetic. Big booksellers, such as W. H. Smith, Foyles and Blackwell's, are only selling the EMI "books" in their record departments.

A typical individual bookseller, Ernest Fielder of Wimbledon, says he is carefully waiting to see how cassette books will develop. "I still think people like to read quietly in bed," he says, "without a lot of noise."

For all that, the trade magazine, The Bookseller, will this month be publishing a chapter extracted from a forthcoming (free) book by pop-scientist Christopher Evans. The title of the extract: "Death of the Printed Word?"

Spitting distance

Glasgow Central Station has rarely been a place for festivity and the mood in the city is even more dour than usual at the moment. But the 100,000 passengers a day who arrive at the station are this week being pilled with souvenirs and travel passes by staff tricked out in nineteenth-century costume. It is British Rail's way of celebrating the station's centenary—the only period items missing from the platform are the large spittoons which Glaswegians once liked to have handy. BR is also hoping to prove that the future will be as agreeable as the distant past. This autumn will see the opening of the £26m Trans-Clyde line, five miles of track which link the northern and southern sectors of the city. It is a joint venture with the Greater Glasgow Transit Authority.

In for lunch

A reader tells me that he approached a girl assistant in a Basingstoke shop, after waiting for some time to be served. "Could you help me?" he asked. "I'm sorry, dear," she answered, "I'm not back from lunch yet."

Observer



"I'd planned to have lunch. But these days I have to have some help."

When you've once known a reasonable standard and have saved for your retirement, what can you do when inflation makes a mockery of all your careful planning?

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To begin with, the DGAA will understand. Although they have 13 Residential and Nursing Homes, they know that people want to stay in their own homes for as long as they can cope, keeping their friends and the roofs they have put down over the years.

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Please help the DGAA with a donation. And please, do remember the DGAA when making out your Will.

DISTRESSED GENTLEFOLK'S AID ASSOCIATION

Vicarsgate Gate House, Vicarsgate Gate, Kensington, London W8 4AG

Observer



# A solar smorgasbrod

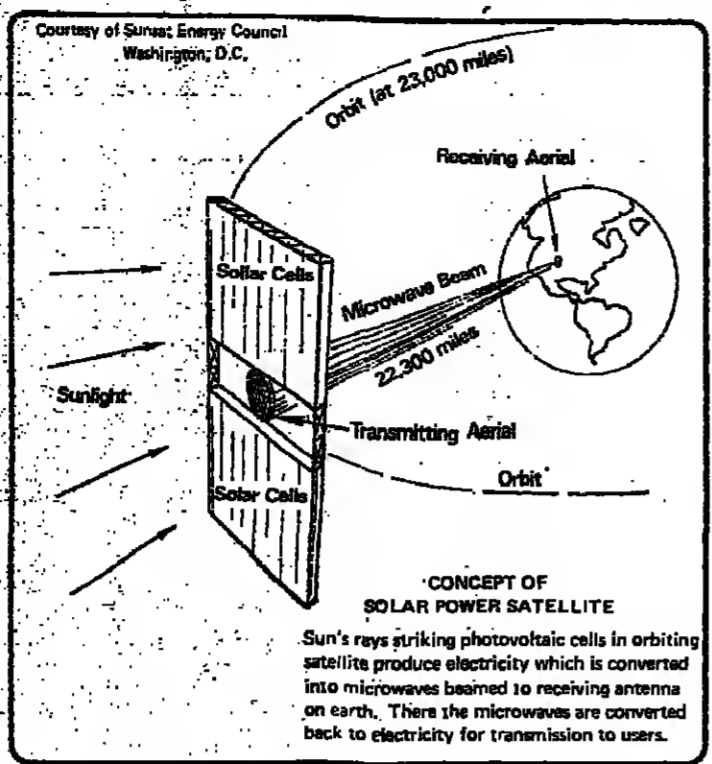
PRESIDENT JIMMY CARTER OF July 15 made the equivalent of John F. Kennedy's famous declaration of 1961: "We choose to go to the moon in this decade... because that goal will serve to organize and measure the best of our energies and skills." The U.S. has harnessed 2.5m people in a \$25bn project to land a man on the moon 10 years ago.

President Carter plans to harness the sun. He has set a goal for the U.S. currently obtaining three-quarters of its energy from oil and gas—to be harvesting 20 per cent of its energy from the sun by the end of the century. To put the figure into perspective, even assuming present-day levels of U.S. energy consumption, it represents rather more energy than the U.S. is winning from coal.

But it seems to include the expansion of hydro-electric resources, which already account for about 5 per cent of U.S. electricity. The U.S. has identified more than 600 new sites.

The sun is a natural nuclear fusion reactor, inexhaustible for all practical purposes, from the more deadly rays of which distance and the earth's atmosphere keep us fairly efficiently protected. The scientists are clearly having a frustratingly difficult time trying to simulate the sun's nuclear reactions on earth in experiments now costing \$100m-£200m a throw. What could be more natural than for the nation which 10 years ago conquered the moon now to declare that it will conquer the sun?

The next question is how. President Nixon, upon hearing that SpaceShip Eagle had landed, declared that "the heavens have become part of many worlds." But his own Project Independence for making the U.S. self-sufficient in energy by 1985, by such means as solar energy, has long since been abandoned. Prodigious spending on research



ample, with nuclear energy there is a single market, the electricity supply industry; and a single technology, the nuclear reactor, which these days comes in a small variety of commercial designs. For the conversion of coal to oil or gas, there are a small number of interesting chemical routes which, given another couple of decades of development, design and plant construction, may well succeed in replacing some oil imports.

Solar technology is more akin to new technology for the conservation of energy. In both areas there is a great variety of possibilities, at every level from the humblest domestic function of water heating to very dramatic changes in the way entire industries organise their activities. In both areas there has been a dismal lack of direction in ordering priorities, deciding where cash and effort should go first in order to open a new source of energy. In both areas top energy department executives have stumbled over political hurdles deliberately strewn in their path, or have resigned in frustration.

Let us first get a glimpse of the smorgasbrod of technology. Inevitably, there is a glimmer of light to the market and it is rather confined to those who would rather spend a windfall on the roof than pay electricity bills. A paperweight on my desk on a sunny day generates just enough electricity to tinkle out a few bars of You are my Sunshine. On Fifth Avenue in New York for \$16 you can buy a sun hat fitted with a solar cell which drives a small fan—to keep you cool in the sun.

At the other end of the market there is a scheme which has the enthusiastic support of the U.S. aerospace industry, for solar stations in space, harvesting sunshine day and night, and beaming it 23,000 miles back to earth as microwave energy. Its inventor, Dr. Peter Glaser, an engineer with Arthur D. Little

in Cambridge, Massachusetts, sees solar stations generating perhaps 5,000 MW of electricity apiece (equivalent to about one-twelfth of total existing generating capacity in Britain) as the long-term answer to any limits to terrestrial resources of nuclear fuel. He claims, on the basis of studies with which such companies as Boeing, Lockheed, McDonnell Douglas and U.S. General Electric are associated, that such power plants could be built for \$1,800-\$3,000 per kW, compared with \$1,400 per kW for nuclear stations, would need no fuel, and "only periodic maintenance."

But Dr. Glaser's grandiose scheme has been bitterly attacked in many quarters, not least by those opposed to centralising supplies of energy generally (and of electricity especially), who see solar energy as the great opportunity for decentralising. They point out that while it may place the main inefficiencies in the system well away from the earth, it will interfere environmentally by introducing microwaves and water vapour into the atmosphere, and will require very large aerials to catch the microwaves.

Even the U.S. National Aeronautics and Space Administration has not been lobbying for that particular technology. A few months ago Dr. Robert Fresch, NASA's administrator, told me that he was "rather sceptical" about several aspects of the scheme. He wanted to know more about the engineering problems, the environmental effects, and above all the economics, he said.

Figures NASA has been conjuring with are \$50bn to set up the project along the lines of the Apollo moon landing, and another \$25bn to build the first power station in space. Even these figures assume solar cell efficiencies of 17 per cent over areas of cells—and we have barely done that in the laboratory.

## STATUS OF U.S. SOLAR TECHNOLOGIES

TECHNOLOGY	APPLICATION	WHEN COMMERCIAL	COMMENT
Solar power satellite	Electricity	Well beyond 2000	Very high capital investment
Solar cells (photo-voltaics)	Electricity	Now—at a price	No way known of mass-producing
Power towers	Electricity	1990s	Storage/cost problems
High temperature solar heating	Industrial heat	1980s	Ripe for exploitation
Low-temperature solar heating	Commercial/domestic heat	1980s	Ripe for exploitation
Ocean thermal energy conversion (OTEC)	Electricity	2000+	Very low efficiencies of 5-7 per cent
Windmills	Electricity (mainly)	late 1980s	Storage/cost problems
Biomass	Liquid fuels (gasohol)	1980s	Ripe for exploitation

More down to earth, solar cells may be able to provide enough energy to drive solar hats or music boxes, and even power telephones and electric fences in sunny places. But their inefficiency and cost puts them far beyond reach of the electricity companies. Those in the sunbelt have at least shown some interest in the possibility of raising steam at the temperatures and pressures they are accustomed to using by the time-honoured boy scout method of focusing the sun's rays. The technology is variously known as the "power tower" or heliostat. The idea is to have an array of mirrors—which, for a sizable station would cover many acres—focused upon a central, elevated boiler. In order to generate 100 MW of electricity the designer would have to catch most of the solar energy falling upon some 3-5 square kilometres.

Like solar satellites, the technology falls foul of these opposed to central electricity supplies. It is also criticised as impossibly expensive. Estimates have been made that to compete with present methods of generating electricity the solar collectors and their precision steering must be manufactured for prices lower than the cost of meterway signs and advertising boardings. Even that takes no account of the fact that when the sun is not shining the plant will be generating no electricity.

Energy storage is a vexed

question for many solar enthusiasts who are in danger of forgetting that anyone might want electricity at night. The fact is that storage technology for electricity remains in a rather primitive and expensive state. Storage of heat energy is another matter. U.S. industry has done an immense amount of work since the 1973 oil price increases on new technology for capturing and storing sunshine at temperatures of genuine interest to industry. A government survey a year or so ago counted nearly 300 companies in the business.

Here above all there are real opportunities for replacing oil across a broad swathe of the U.S., harnessing solar energy at temperatures high enough to provide not only domestic and commercial heating (or cooling), but precess heat for industries. The storage problem is solved by storing the heat in water or a liquid with a higher boiling point. More than half-a-dozen companies are said to be offering temperatures as high as 315 degrees C. Scientific Atlanta offers a solar concentrator said to raise temperatures of 495 degrees C.

A more adventurous way of overcoming the storage problem would use solar energy already stored in the sea. It will require huge machines called ocean thermal energy converters (OTEC), of which the Department of Energy is funding an experimental model in

the Pacific off Hawaii. In effect it will be a big heat pump sucking heat from the sea. Its high disadvantage is a dismal theoretical efficiency, only about 5 to 7 per cent, as the reward for heavy capital investment. Nature solves the problem of storing sunlight energy by converting it into chemical energy in green plants. Plants rich in carbohydrates can be fermented to produce alcohol, which in turn can be distilled for use as a liquid fuel—far example, as a 10-20 per cent mixture with petrol called gasohol or "green petrol." The U.S. is already wrestling with the economics of gasohol. More than 500 petrol stations—mainly in the cornbelt of the Midwest—sell a blend containing 10 per cent alcohol.

Swift's Lupton inventor in Gulliver's Travels had spent "eight years on a project for extracting sunbeams out of cucumbers which were to be put in vials hermetically sealed, and let out to warm the air in raw inclement summers." President Carter's herds of state-funded solar inventors have undoubtedly made progress with projects capable of warming air to several hundred degrees centigrade. But unless most of the effort goes into time-honoured technology such as hydro-electricity or gasohol, they will surely fall short, by a very wide margin, of meeting 20 per cent of the U.S.'s energy needs by the end of the century.

and development in national as well as industrial research centres has produced what a former U.S. energy research chief once called a "smorgasbrod of technology," but almost no new energy other than nuclear. Even new hydro-electric schemes have been blocked for "environmental" reasons.

The reasons for this failure are many and varied, but can often be traced to the sheer variety of choice. It has caused endless bickering about which projects should be pursued where, with whose money. The Department of Energy, in keeping with U.S. custom, wanted industry to build the big demonstration plants. But companies claiming to be ready and willing to press ahead have found themselves debarred by political unpopularity from re-

ceiving public funds for the project. Even the creation in 1977 of the Solar Energy Research Institute (SERI), in the sun-belt at Golden, Colorado, has not had the desired effect of coordinating the solar energy programme. "We're here to foster an industry," the director claims. But a score of Congressmen from places which failed to host the coveted new institute have been trying to make sure it cannot work. There even has been talk of a national network of solar institutes in little SERIs—to take charge of the Department of Energy's solar programme, expected to involve contracts worth \$200m-£300m by the early 1980s.

Solar technology energy differs in important ways from other technologies for the production of energy. For ex-

ample, with nuclear energy there is a single market, the electricity supply industry; and a single technology, the nuclear reactor, which these days comes in a small variety of commercial designs. For the conversion of coal to oil or gas, there are a small number of interesting chemical routes which, given another couple of decades of development, design and plant construction, may well succeed in replacing some oil imports.

Solar technology is more akin to new technology for the conservation of energy. In both areas there is a great variety of possibilities, at every level from the humblest domestic function of water heating to very dramatic changes in the way entire industries organise their activities. In both areas there has been a dismal lack of direction in ordering priorities, deciding where cash and effort should go first in order to open a new source of energy. In both areas top energy department executives have stumbled over political hurdles deliberately strewn in their path, or have resigned in frustration.

Let us first get a glimpse of the smorgasbrod of technology. Inevitably, there is a glimmer of light to the market and it is rather confined to those who would rather spend a windfall on the roof than pay electricity bills. A paperweight on my desk on a sunny day generates just enough electricity to tinkle out a few bars of You are my Sunshine. On Fifth Avenue in New York for \$16 you can buy a sun hat fitted with a solar cell which drives a small fan—to keep you cool in the sun.

At the other end of the market there is a scheme which has the enthusiastic support of the U.S. aerospace industry, for solar stations in space, harvesting sunshine day and night, and beaming it 23,000 miles back to earth as microwave energy. Its inventor, Dr. Peter Glaser, an engineer with Arthur D. Little

## Letters to the Editor

### New and inapt word

From the Chairman, The Stock Exchange.

Sir, I am distressed to learn from John Elliott and Anatole Kaletsky in their article (July 30) "Long and short terms of denationalisation" that "privatisation" is "becoming part of the vocabulary of Whitehall. I do not have the word in the Oxford English Dictionary, although I must admit that the latest volume of the OED supplement only takes us to EN. When the next volume of the supplement appears I hope the entry will read something like this—Privatisation [n. of action]. PRIVATE + ISATION. Obs. 1. The act of returning state-controlled industries to public ownership. 2. The transfer of industries from political and/or (usually) and bureaucratic direction by the few, and their subjection instead to commercial criteria and disciplines imposed by the many. 3. Democratisation, accountability, greater efficiency, productivity, etc.

Whitehall does not need this new and inapt word. It has somewhere in the pending tray the words "public ownership" which aptly describe the Government's policies. These are the words that Ministers should be using.

Nicholas Goodison.  
The Stock Exchange, EC2.

### Commodity centre

From Mr. J. Finn, MP.

Sir, May I express my serious concern at the Government's refusal so far to provide financial assistance for a World Commodities Centre in London, as reported on July 20.

The advantages to London and the UK of such a centre have been well established and are presumably recognised by this Government as they were by the last administration. But while the Government is prepared to consider a guarantee, it is not so far prepared to provide the assistance to enable the project to go ahead.

The situation is becoming urgent with various international commodity organisations seeking suitable facilities and being offered attractive

### Interest, tax and income

From the Chairman, Residential Property Committee, British Property Federation.

Sir, There is so much sound common sense in your leading article of July 26 that one hesitates to cavil at any part of it. In particular, your emphasis on the need for a revived private rented sector to fill the yawning gaps in our present housing system is most timely, as was Mr. Trollope's letter (July 25) on the same point.

Perhaps through lack of space, however, you omitted to mention the factors without which the private rented sector cannot hope to be revived. Paramount among these is the need for the investing landlord to obtain from his investment a return which will be at least as attractive to him as the return he can obtain by investing elsewhere. This means that those who occupy rented accommodation must be prepared to pay a rent which, after deducting the landlord's outgoings, will give him such a return. What the level of return should be can be debated endlessly. If inflation is to continue at its present rate, or even at a slower rate, property is likely to be such a good inflation hedge, that potential landlords might be satisfied with income which gives them a relatively low percentage on the capital invested. If, however, as we all hope, the Government achieves success in fighting inflation, different factors will prevail.

I am not quite sure what you were advocating in the first four paragraphs of your article. Was it that the old Schedule A tax on the occupation of property should be revived, but the present "privilege" of deduct-

### Relief from pollution

From the Assistant Director of Planning, Brown Beccer end Co., Switzerland.

Sir, From the point of view of carbon dioxide pollution, President Carter's new energy policy does not bring any relief; on the contrary, if one substitutes coal for oil the carbon dioxide output per energy unit consumed is approximately 50 per cent higher.

It is an established fact that the content in the atmosphere has already risen 15 per cent since the last century. It is also scientifically proven that concentrations above a certain level cause an increase in average earth temperature. This effect will atay for centuries because of the slow processes involved in lowering the concentration even after stopping carbon dioxide production completely.

If one looks for long range solutions to the energy problem one should take these facts into consideration and start lowering its production as soon as reasonably possible. An alternative path, which avoids the pollutant completely, would be the nuclear option which has been chosen by France and partly by the Comecon countries. It would need, however, an aggressive programme which included reprocessing of spent fuel and fast breeder development. The U.S. as one-time leader in nuclear technology has unfortunately harried this route firmly and will contribute thus for many years to come to world-wide carbon dioxide pollution.

Dr. H. Rytz,  
former Director of Mühleberg (Nuclear Power Station),  
CH-3084 Weibern,  
Viktoria-Strasse,  
Switzerland.

### New auditing and disclosure requirements

From Mr. J. Percy.

Sir, As reported by Michael Lafferty (June 26), the Government will shortly publish a consultative paper on company law. It seems likely that it will embrace new auditing and disclosure requirements for small proprietary companies. This is not just a matter of narrow professional concern to accountants. It will profoundly affect many thousands of companies, their proprietors and those with whom they do business. If the wrong decisions are taken company costs will increase, yet in practical terms the public will receive less comfort than it has a right to expect from audited accounts.

I write as an auditor but I am not mainly concerned in this letter with the interests of the auditor. Limited companies are audited not for the benefit of the auditor, nor for the benefit of the management, but for the benefit of the present proprietors and the wider public—the prospective proprietors, the financiers, the suppliers and the customers.

It is often said that the audit is the price to pay for limited liability. So be it. The proprietor has the choice of unincorporated trading if he prefers. The banks and the other major creditors can protect themselves by seeking personal guarantees from directors. But for the other members of the society, it is essential that the protection intended by the law is heth meaningful and worthwhile.

So what has changed? Smaller companies have been with us for generations. Audit reports under the Companies Acts have been issued, mainly without qualification. The change is in the nature of the evidence which is properly coming to be expected. It is no longer enough for the auditor to rely on the uncorroborated word of the directors.

Following good practice, formal standards of much greater rigour than of ten or twenty years ago can be expected. The larger company

**GENERAL**  
U.K. Monthly meeting of National Economic Development Council under chairmanship of Sir Geoffrey Howe, Chancellor of the Exchequer — main item is profitability and investment.

First report of Professor Hugh Clegg's comparability commission covering local authority, health service and university manual workers and ambulance men.

General Council of British Shipping Issues British Shipping Review.

Mr. Michael Heseltine, Environment Secretary meets councillors and officers from Overseas: Queen opens Commonwealth Conference in Lusaka. COMPANY MEETINGS  
BPB Industries, 15 Marylebone Road, NW. 12. Eya Industries, Midland Hotel, Manchester, 11.45. Fairdale Textiles, 54 Baker Street, W. 12. Halma, Dorchester Hotel, W. 12. Arthur Holden, Midland Hotel, Birmingham, 12. Fitman, 39 Baker Street, W. 11. Powell Duffry, Dorchester Hotel, W. 12. Redifusion, Institute of Directors, Pall Mall, SW. 12.15. Tsejeng Tin, 65 London Wall, EC. 11. United Kingdom Property, 16 Hans Road, SW. 11. Wellman Engineering, Grosvenor Hotel, SW. 12. B. S. and Whiteley, Post House, Leeds, 12.

**Today's Events**  
Overseas: Queen opens Commonwealth Conference in Lusaka. COMPANY MEETINGS  
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UK COMPANY NEWS

# Lex 42% ahead and confident for year

PROGRESS continued for Lex Service Group in the first half of 1979 with taxable profit climbing 42 per cent from £5.37m to £11.89m. Sales by the group, whose interest include motor vehicle distribution and servicing, plant hire, transport and hotels, were up 68.5% at £257.7m.

Mr. Trevor Chinn, the chairman, says the Government recent budget measures and the world energy situation makes it difficult to forecast trading conditions for the second half. Normally the company's non-motor businesses make more in the second six months than the first.

## HIGHLIGHTS

Yesterday brought a sharp shakeout in sterling and Lex looks at what may happen next on the currency front against a background of a gloomier industrial picture as painted by the latest CBI industrial trends survey. On the company scene Taylor Woodrow's profits are marginally down but there is a 50 per cent dividend rise, as forecast at the time of the rights issue. Thorn Electrical's annual report spells out a picture of accelerating capital spending whereas profits will stay quite sluggish and the company is expecting a sharp increase in borrowings. Lex also examines the large losses of Chrysler Corporation—the weakest of the three U.S. motor giants. Elsewhere, comments are made on Grindlays, Lex Service, Vantona, Pratt, Hirst and Mallinson and Portsmouth and Sunderland.

Net current assets amounted to £31.57m (£18.99m) and shareholders' funds were up from £66.5m to £91.86m.

There was an extraordinary gain this time of £1.51m (£152,000 debit) comprising principally profits on property sales.

	1978	1979
Sales	257.7	435.0
Operating profit	14.58	10.28
Interest	2.71	2.28
Profit before tax	11.87	8.00
Tax	1.90	1.83
Net profit	10.47	6.97
After 20p rise in p/e	1.05	1.12
Attributable	12.02	8.55
Dividends	10.98	9.76
Retained	1.04	5.87

Volvo continues to make a good deal of the running at Lex and profits are slightly over recent market expectations. Estimates are now pinned on around £23m pre-tax for the full year, whereas a 2p rise to 8.1p yesterday, the prospective fully taxed p/e is just 5.1. The protected yield, assuming a 7p net total dividend, would be 11.3 per cent which serves to reinforce the view that the impact of the expected 10 per cent shortfall in July-December new passenger car registrations has been over-exaggerated. True margins on the BL franchise have been under pressure but its importance is considerably less than that of Volvo where Lex aims to sell 36,500 vehicles this year against 29,500. Elsewhere, the boom conditions of 1977 in the hotel industry are unlikely to be repeated in the foreseeable future but at least the deferred fee on the Carlton Tower management contract is expected to be reduced this time. The Whitehall in Chicago is still making progress and occupancy rates at the Heathrow Hotel are slightly better. The tax charge will remain very subnormal in 1979, which, coupled with 50 per cent gearing and a substantial capital repayment of £1.5m, provides a significant platform from which to pursue U.S. takeover ambitions.

# Hirst and Mallinson expands 28% to £160,400 midway

PRE-TAX PROFITS of Hirst and Mallinson, the catering equipment distribution and textile group, rose 28 per cent from £125,100 to £160,400 in the 27 weeks to May 5, 1979. This was despite more than doubled interest of £117,000, against £45,400.

The net interim dividend is stepped up from 1p to 1.3p—a maximum total of 3.58p was forecast at the time of the rights issue in February. Last year's net total was 2p, paid from taxable profits of £145,000.

Turnover for the half-year advanced 24 per cent to £3.78m (£2.97m). After tax of £1,209,000, earnings per 20p share are given as 3.4p (3.1p).

Mr. M. D. Crompton, chairman, reports that the catering equipment activities continue to develop well and the directors see these as an area for further growth. The recent expansion programme has been very successful.

In removals, the group was hit by the transport strike and while domestic sales show an improving trend, there is no sign of any upturn in overseas shipping.

The chairman says the price war in the pharmaceutical distribution industry has had a severe effect on Northern Pharmaceuticals' sales and margins. It is difficult to see any improvement, and consequently steps have been taken to minimise the damage.

Other protesting shareholders asked about Hill Samuel's involvement in arranging loans for the South African Electricity Supply Commission, for SASOL, which was concerned with developing synthetic oil, and agencies concerned with the Bantustan homelands for black people. However, they obtained little information from the Hill Samuel Board, with Sir Kenneth stressing the autonomy of the group's South African subsidiary.

Mr. Robert Clarke, Hill Samuel's chief executive, reaffirmed the Board's opposition to apartheid. Nevertheless, as an international bank, the group had loans in most parts of the world, including Russia.

Sir Kenneth said it would be impossible and unrealistic for Hill Samuel to withdraw from South Africa. "First of all you have to find a buyer," he declared.

He told the meeting that Hill Samuel had had a successful first quarter. "On the broking and consulting services side, Noble Lowndes and Partners is continuing to produce excellent results while Lambert Brothers Shipping, although still encountering adverse trading conditions, is benefiting from the improved freight markets."

# Taylor Woodrow falls to £7.6m at halfway stage

ON TOTAL turnover up £3m at £196m pre-tax profits of Taylor Woodrow, the builder and civil engineering contractor, fell from £3.09m to £7.65m in the half year to June 30, 1979.

But the directors point out that the pre-tax profits figures are not directly comparable because of the change of status of two companies. Taylor Woodrow of Nigeria and Taymech Nigeria which were subsidiaries in 1978 are now associated companies.

They add that the results should be viewed in the light of the industrial unrest, including the transport strike, the severe weather and the exchange effect of the movement in exchange rates from June, 1978 to June this year. Because of the long-term nature of much of the group's business they stress that profits should be judged over several years rather than a short period.

The interim dividend is lifted from 2.01p to 3.15p plus a supplementary of 0.2904p following the reduction in tax. At the time of the £18m rights issue in February this year, the Board said they intended to pay a total of no less than 12.74p for 1979. Last year's total was 8.4953p on taxable profits of £23.95m (£22.42m).

Turnover of the company and its subsidiaries was down from £182m to £171m at midway, but that of the associated companies rose from £11m to £25m.

Trading and investment income fell from £12.3m to £10.53m, and depreciation was £4.21m, against £4.56m. The contribution from associated companies rose from £33,000 to £104,000.

Tax for the period is down from £4.23m to £3.94m leaving the surplus after tax at £3.72m, compared with £3.88m. Minor after which the attributable surplus is up slightly from £3.55m to £3.4m.

## DIVIDENDS ANNOUNCED

Company	Current payment	Date	Corre. of sp. for year	Total last year
Cableforce	1.85	Oct. 3	3.08	3.3
City Offices	1.3	Oct. 1	0.96	2.94
Colonial Secs.	2.3	Aug. 31	2.5	9
Grindlays Hldgs.	1.06	Oct. 1	1	3.07
Hirst & Mallinson	1.3	Oct. 1	1	2
Kuala Lumpur	0.1	Oct. 8	0.08	0.2
Lex Service	2.3	Sept. 13	1.8	4.5
Pratt Eng.	1.1	Sept. 7	1.84	5.42
Taylor Woodrow	3.44	Oct. 1	2.01	8.5
Vantona	3	Oct. 1	2	5.75
Weber	2	Oct. 15	1.75	10.75

Dividends shown pence per share net except where otherwise stated. \* Equivalent after allowing for scrip issues. † On capital increased by rights and/or acquisition issues. ‡ Malaysian \$ gross throughout. § Including 0.2904p Supplementary. ¶ Sp total forecast.

The dividend absorbs £10.1m. Turnover and investment income fell from £12.3m to £10.53m, and depreciation was £4.21m, against £4.56m. The contribution from associated companies rose from £33,000 to £104,000.

Tax for the period is down from £4.23m to £3.94m leaving the surplus after tax at £3.72m, compared with £3.88m. Minor after which the attributable surplus is up slightly from £3.55m to £3.4m.

# Vantona rises 20% at midway: second-half prospects promising

INCLUDING A first time contribution by Compton Webb, pre-tax profits of Vantona Group show a 20 per cent increase at £4.02m for the six months to June 1, 1979. Turnover for the period advanced from £9.1m to £5.7m.

Fully diluted earnings are shown to have risen from 8.5p to 9.1p on capital enlarged by the acquisition of Compton Webb, which the directors describe as providing a satisfactory contribution to profits.

They state that group prospects for the second half are promising with good order books, although indications are that margins will be under pressure as a result of rising costs.

The net interim dividend is stepped up from 1.9555p to 3p, and subject to a satisfactory second half performance, a 5p final payment is forecast. This would represent a 35 per cent increase on last year's total of 5.752p which was paid from pre-tax profits of £7.31m.

During the first four months of the year industrial unrest and bad weather delayed delivery of goods which affected levels of stocks and increased interest charges beyond those anticipated.

Capital expenditure, as part of a three year plan, was in excess of £3m in the first six months.

Full provision has been made in the interim figures for all tax which is payable or deferred. The accounts for the year, however, will be prepared on the basis of SSAP 15. In the meantime, as a result of the budget provisions relating to the release of the first two years' stock relief, the sum of £2.8m can be released from deferred tax to reserves.

The group's interests include household textiles, fashion fabrics, garments and foundation garments.

	Six months 1978/79	Six months 1977/78	Year 1978/79
Turnover	57,000	28,120	82,400
Trading profit	4,228	3,527	7,711
Interest	818	192	409
Profit before tax	4,040	3,335	7,310
Tax	1,923	1,632	3,220
Net profit	2,078	1,713	3,891
Per share	1.9555	1.632	3.71
Dividend	1.9555	1.632	3.71
Reserves	1,123	1,081	2,180
Retained	1,123	1,081	2,180

Vantona's interim profits look to be going against the textile industry trend but the real rate of organic growth within an overall rise of a fifth at the pre-tax level is obscured by an unquantified first time contribution from Compton Webb. The new subsidiary is apparently on target for over £2m pre-tax in the full year but there is some seasonal bias and a change of year end which precludes any pro rata half-to-half breakdown. The least that might be said, however, is that the original business model is maintaining profits after a very difficult first quarter. And, although cost pressures are building up at the expense of margins, order books throughout the group are full to the end of the year and the benefits of the first tranche of the recently announced capital speeding programme are expected to come through in the second half. Prospects for this period are obviously very fluid but, on the basis that Vantona will do no more than repeat the level of the first half fully taxed and diluted earnings, the prospective p/e of 6.3 says more about conditions in the textile industry than the group's own outlook. The yield of 9.9 per cent, on the dividend forecast, does nothing to contradict that view.

# Portsmouth Sunderland rises to £0.97m in first quarter

TAXABLE PROFITS of Portsmouth and Sunderland Newspapers expanded from £692,000 in 1967/68 for the 13 weeks to June 30, 1979, to increased turnover of £4.35m, against £3.5m.

In the last full year, the surplus reached a record £2.88m. After tax for the period of £493,000 (£357,000), earnings per 25p share are shown higher at 3.9p (4.1p).

On a CCA basis, pre-tax profits were £722,000, and earnings are given as 2.8p.

The 40 per cent rise in pre-tax profits at Portsmouth and Sunderland gives little indication of the full-year result, but certainly suggests that the provincial press was making hay during the second calendar quarter. An increase in advertising rates and volume before the budget was the main stimulus, though Portsmouth and Sunderland also benefited from higher cover prices, introduced in January, and from the effect of higher interest rates on investment income. The sterling/dollar clause in newspaper contracts will have allowed the group to exploit foreign exchange fluctuations, but only temporarily. Add to this uncertain advertising revenue prospects and the chances are that the first quarter figures will look a little aberrant by the year end.

Mr. W. Gibson Briggart, chairman of Wheway Watson Holdings, told the annual meeting.

But he pointed out that the results for the full year should be satisfactory. Taxable profits for the whole of last year were £910,400 (£765,853) after rising from £283,816 to £420,859 at midway.

The chairman adds that the higher interest rates will mean that the midway charge will be £50,000 more than the previous half year.

But he says that despite the strength of sterling exports sales are expected to be maintained. Last year the company exported £1.5m of products.

British Land dividend in sight

ON THE back of its improved financial situation British Land hopes this year to make its first dividend payment for more than six years.

Mr. John Riblat, chairman, says in the property company's annual report that the character of the company's business, in the absence of long-term finance at reasonable rates, should minimise the amount available for dividend distribution.

Mr. Riblat says that net borrowings have now been reduced to under £80m compared with net tangible assets of £107m. In the year to March 31, 1979 the group earned a pre-tax revenue surplus of £3.6m.

# Grindlays hit by strength of £

WITH Grindlays Bank, its main subsidiary, hit by the strength of sterling, taxable profits of Grindlays Holdings fell from £19m to £16.2m in the half year to June 30, 1979.

The bank's directors say that the strong £ cost the group about £2.9m in profits. They add that the uncertainty of exchange rates and signs of recessionary problems for world trade make it difficult to forecast the second half, but they say it is unlikely that profit for the year will be as high as 1978. The taxable profit last year was £37.2m.

Tax on the profits of Grindlays Holdings amounts to £8.37m, against £9.06m. After minorities of £3.93m (£4.97m) and an extraordinary credit of £483,000 last time the attributable profit is down from £8.43m to £8.1m.

The interim dividend is raised from 1p net to 1.0625p and earnings per 25p share are down from 14.5p to 11.5p. The total dividend last year was 3.071p on taxable profits of £37.23m.

The attributable profit of Grindlays Bank, which is 51 per cent owned by Grindlays Holdings, was down from £10.63m to £7.62m after tax of £8.43m (£9.13m), a £947,000 extraordinary credit last time and minorities of £259,000 (£298,000).

The dividend absorbs £173,000 (same) and earnings per share are shown down from 61.4p to 48.3p.

Directors of the bank say that in the first half specific provisions for doubtful debts, after bringing back provisions no longer required, were at a much reduced level.

Tax relief brought forward from earlier years has been used to offset UK taxable profits, and this benefit will continue for part of the second half.

Grindlays' share price has been falling ahead of the interim results and the shares slipped another 5p to 101p after the news, giving a 14p loss over the past week. A combination of disappointing figures from Grindlays Bank where profits are 15 per cent lower and a virtually unchanged dividend explained the market's reaction. Unlike the UK clearing banks, Grindlays has not had the benefit of high domestic rates to cushion the sluggishness of its international profits. In addition, it is suffering from the strength of sterling which depressed profits by £2.9m in the half year compared with a figure of £1.9m for the whole of 1978. The group may still decide to pay a higher dividend at the final stage but on an unchanged basis the yield is 4.5 per cent. Meanwhile, the shares sell on around four times prospective earnings.

## ISSUE NEWS

### Yearlings rise to 12 1/2%

The coupon rate on this week's batch of local authority yearling bonds is up from 12 1/2 per cent to 12 3/4 per cent. The bonds, 22 dated August 6, 1980, and issued at par.

The issues are: London Borough of Havering (£1m), Inner London District Council (£1m), St. Helens Metropolitan Borough Council (£0.5m), Cleveland County Council (£1m), City of Sheffield (£1.25m), Borough of Chesterfield (£0.5m), Buckinghamshire County Council (£1m), Hart District Council (£0.25m), Cambridgeshire County Council (£0.5m), Dudley Metropolitan Borough Council (£0.25m), Borders Regional Council (£0.25m), Kingswood District Council (£1m), City of Wakefield Metropolitan District Council (£0.5m), City of Carlisle District Council (£0.5m) and Bolsover District Council (£0.5m).

Dartford Borough Council is issuing £0.5m 13 1/2 per cent bonds due on July 29, 1981 at par.

Statistics compiled by Midland Bank show that the amount of "new money" raised by the issue of marketable securities in the UK in July was £61.5m, less than half the June total of £153.9m.

So far, this year, 67 rights issues have raised a total of £520m, more than double the total raised in the corresponding period of 1978.

HIGHLAND DISTILLERIES

Highland Distilleries announces that in connection with the rights issue of 10,235,000 ordinary shares at 88p each, acceptances have been received in respect of 8,783,501 shares, or 85.6 per cent of the 1,060,512 new ordinary shares and 100 per cent of the new management shares offered by way of rights to ordinary and management shareholders respectively.

STYLO

Stylo Shoes announced that acceptances have been received in respect of about 88.3 per cent of the 1,660,512 new ordinary shares and 100 per cent of the new management shares offered by way of rights to ordinary and management shareholders respectively.

HARGREAVES GP

Hargreaves Group announces that acceptances have been received for 7,517,627 ordinary shares at 88p each, representing approximately 85.3 per cent of the 8,791,666 new shares offered by way of rights. The shares, not taken up have been sold in the market at a net price of 47p per share.

## ROSGILL HOLDINGS LIMITED

**Results for the 52 weeks ended 26th May, 1979**

Turnover	Up by 41% to £22-87 million
Profit before tax	Up by 257% to £1-13 million
Profit after tax	Up by 227% to £1-03 million
Earnings per share	Up by 227% to 10-80p
Dividends per share	restored to 2-31p
Shareholders' funds	Up 66% to £2-03 million

*the mirror*

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*Extract from Mr. N. C. N. Housden's statement to shareholders*

In the year 1978/79, in spite of disruption to supplies, Trading Profit increased by 23% and Net Profit before Tax by 15%—both new records.

These results have come from improvements in all areas of the Group and stem largely from our continuing policy of modernising and developing our existing businesses.

Motor Cars and Vans showed the greatest increase in sales although the Truck, Bus and Coach Departments all continued to be successful.

We have budgeted for a profit increase this year and are currently ahead of our forecast. Our confidence in the future of our industry is as strong as ever and we shall continue to expand.

Summary of Results	1978/79	1977/78
Sales	50,520	43,100
Profit before Tax	1,317	1,147
Profit after Tax	1,134	876
Extraordinary Items	(134)	96
Dividends	370	301
Earnings per Share	27.6p	24.5p

\*1977/78 figures restated

## ARLINGTON MOTOR HOLDINGS

COMMERCIAL PASSENGER VEHICLES - CAR SALES - SERVICING - AUCTIONS  
CONTRACT HIRE & LEASING - BODY BUILDING - HIRE PURCHASE FINANCE

## NatWest Registrars Department

National Westminster Bank Limited has been appointed Registrar of

## Equity & Law

Life Assurance Society Limited

All documents for registration and correspondence should in future be sent to:

National Westminster Bank Limited  
Registrar's Department  
PO Box No 82  
37 Broad Street  
Bristol BS99 7NH

Telephone Bristol (STD Code 0272)  
Register enquiries 290711  
Other matters 29144

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## THE NEW THROGMORTON TRUST LTD.

Capital Loan Stock Valuation—July 31st, 1979

The Net Asset Value per £1 of Capital Loan Stock is 185.19p.

Securities valued at middle market prices.

UK COMPANY NEWS

NEWS ANALYSIS—WELLMAN DEFENCE

A chance to decide: Redman or Indiana

BY RAY MAUGHAN

A COMMON takeover tactic to bid for a business when its profits are temporarily down... Redman Hercules International is bidding 65p per share or £7.5m for Wellman Engineering Corporation...

our greatest salesman. Much might depend on the successful commissioning of a Caterpillar Tractor plant at York, Pennsylvania, which is being built to Wellman's design...

into that product in the first place. If that implies a high level of subsidiary Board autonomy, it may be worth noting that the current executive team that Wellman hopes to inherit has been with GE for not less than 13 years and whose average age is around 35 years...

Pratt declines at halfway

TAXABLE PROFITS of F Pratt Engineering Corporation fell from a restated £522,000 to £388,000 in the half-year to April 30, 1979. But the group says that since midway its performance has improved and it is looking for more satisfactory results in the second half...

BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether dividends are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

Table with columns: Company Name, Meeting Date, and Notes. Includes companies like Applied Security, Imperial Chemical Industries, and Royal Insurance.

The profits of IEBD have not been warranted, save that the consideration will be reduced by £108,000 if the acquisition makes less than £1.1m before interest and tax in the 33 weeks to March 1980...

Redman has no argument with the commercial logic offered by the deal and, indeed, has already approached GE with a view to confirming the IEBD purchase...

Whatever the outlook at IEBD it is vital that Wellman is able to fund its proposed high level of borrowing from a stable home base.

Its profits last time slumped by almost 34 per cent after a higher than expected moving costs, a severe disruption in the industries served by Wellman Alloys and significant losses stemming from industrial disruption in the motor industry...

A professional revaluation of the principal freehold and leasehold properties showed an open market value of £5.2m, a surplus of about £3.9m over book value.

Trading profit 1000, Interest 876, Depreciation 240, Tax 388, Dividend 118.

comment Six months ago, after closing its loss-making constructional steel division, Pratt was making optimistic noises about the future but tempering them with warnings about the effects of continued industrial

disturbances. In the event, the company's caveat was justified by the unquantified impact of January's lorry drivers' strike, particularly on exports, and the continued problems in the motor industry...

Overall, Pratt will find it difficult to make a complete profits recovery in the closing six months but £0.9m pre-tax looks possible. At this level, the shares are on a p/e of 4.1 at 62p while the prospective yield is over 1 1/2 per cent assuming a one-fifth dividend increase.

Grindlays Bank S.A.

From August 1st 1979 Banque Grindlay Ottomane changes its name to Grindlays Bank S.A. Grindlays Bank S.A. has from August 1st acquired 4 additional branches and now has 15 branches in France, Monaco and Switzerland...



Grindlays Bank S.A.

Head Office: 7, Rue Meyerbeer, 75428 Paris Cedex 09. Tel: 266 6222 Telex: 210026

Branches in Paris, Aix-En-Provence, Cannes, Grasse, Lille, Lyon, Marseille, Nice, Toulon, Strasbourg, Monte Carlo, Geneva and Zurich.

CH Industrials makes encouraging start

THE ENCOURAGING trend in profits of CH Industrials which became evident at the beginning of its current year is continuing, says Mr M. Hearley, the chairman, in his annual statement.

Management accounts show that first-quarter results are a little ahead of the same period last year. Sales are 12 per cent higher at £14.3m, pre-tax profits for the year ended March 31, 1979, fell by 22 per cent to £24,452...

It should also benefit from the introduction of the new TR7 soft top, he adds. Prospects for this division remain highly dependent on the success of its principal customer to maintain car production close to scheduled levels...

Despite some adverse factors, the directors are optimistic that the current year will see a more acceptable level of profitability, although they add that in some areas of operations progress will be difficult.

In the decorative trim division, the production problems of the metal trim activities have been largely overcome and an improving level of profitability is expected throughout the year.

All companies in the building products division are experiencing substantial raw material cost increases, which Mr. Hearley says must be passed on if improved profitability is to be maintained.

The automotive trim division has built a strong order book for canvas weatherproofing products, particularly for the Ministry of Defence, and the chairman says these products should make a valuable contribution this year.

Courts (Overseas) Limited financial summary table showing Year ended, Turnover, Profit before Taxation, Profit after Taxation, and other metrics.

Advertisement for Beneficial Overseas Finance N.V. featuring 9 1/2% Notes due July 15, 1987, unconditionally guaranteed, and listing various international banks.

Advertisement for Manufacturers Hanover Corporation & Subsidiaries, including a consolidated statement of condition as of June 30, 1979, and a list of directors.

MINING NEWS

# Ashton tests show a 60% gem content

BY KENNETH MARSTON, MINING EDITOR

A GOOD gem proportion of 60 per cent has been indicated from the first evaluation of diamonds collected from the Ellendale prospects at the intriguing Ashton diamond venture in Western Australia. But the value of the stones was relatively low.

Conzinc Riotinto of Australia says that the preliminary examination, carried out in Europe by expert groups which included De Beers' Central Selling Organisation, was of two parcels. One of about 880 carats came from kimberlite pipe "A" and the other of 1,220 carats was from pipe "B".

About 40 per cent by weight of the diamonds from pipe "A" was classified as cuttable gem quality, about 3 per cent was suitable only for industrial use and the remainder was regarded as suitable for lower quality gem or better quality industrial use.

Pipe "B" results also indicated 40 per cent gem quality, but 13 per cent in the industrial grade and the rest in the grey area between gem and industrial classifications. In terms of average value the pipe "A" stones varied between US\$78 per carat (US\$1.22) and US\$88 per carat on the basis of the current market price. Pipe "B" values ranged from \$56 market price to \$57 CSO price.

The high proportion of gem stones is very encouraging, bearing in mind the fact that the average size must be as low as under 20 points—there are 100 points to the carat—but the full 58 facets can be cut on diamonds of as little as just over three points.

While the average price values given are low, they can still be regarded as acceptable. Admittedly it is about the latest results is the recovery grade which in bulk samples treated in the first half of this year equalled 12.4 carats per 100 tonnes of material from the higher grade pipe "B".

This is a low recovery, certainly by South African standards. Admittedly it is about the same as at Consolidated Diamond Mines of South West Africa but that high open-pit operation has a high gem content of about 50 per cent and the stones are much larger and of good quality.

A closer comparison might be with De Beers' old Koffiefontein mine which has a grade of 8.3 carats per 100 tonnes and a gem content of around 50 per cent.

but here again the average size of the stones is considerably higher.

While size alone does not determine the value of the diamond it is still very important; one stone in five carats would be worth far more than five stones of one carat, assuming that all had similar qualities in other respects such as colour, quality and shape.

But, as CRA and its diamond valuers stress, the sizes of the parcels being examined were only about one-fifth of the size normally required to indicate what the average value of diamonds in a pipe may prove to be. And, of course, Ashton has many more pipes which have not yet been examined.

So at this still early stage it is impossible to assess Ashton's prospects. In May last year the CRA chairman said that it could take three years before it was known whether diamonds existed in commercial quantities.

Allowing for the reservations that an approach to exploration requires, results of the latest study are more encouraging than most of the news we have had so far. But as the forum master wrote: "Could do better."

# Uranerz in Tanzania deal

WEST GERMANY'S Uranerz-berghaus uranium group has signed an agreement with Tanzania for exclusive rights to prospect for uranium in that country. This follows a one-year exploration programme which has yielded encouraging results, reports our correspondent in Dar-es-Salaam.

The pact, the first of its kind Tanzania had signed, is for an initial two years of intensive prospecting and gives the Dar-es-Salaam Government the right to acquire a 51 per cent interest in a joint venture company to mine any exploitable deposits that might be found.

Dr. Dieter Nottmeyer, the managing director of Uranerz said that the pact, which was hammered out with the help of the Commonwealth Secretariat, embodied a formula that might well become a model for similar deals with other African countries.

His company has been prospecting in about one-third of Tanzania's initial land area following the discovery of promising radioactive anomalies in an aerial survey carried out

by another West German company, Geosurvey International.

Tanzania has sedimentary strata similar to that in South Africa which yields low-grade deposits. But Dr. Nottmeyer believes the deposits could be richer in Tanzania.

It is understood that Tanzania would also receive a fixed royalty together with company taxes and an additional profit tax related to the rate of return on invested capital.

Uranerz provides 50 per cent of West Germany's uranium requirements from its Canadian-based Lake Mine in Saskatchewan and is developing another big deposit in the province which, Dr. Nottmeyer estimates, will reach production in the early 1980s.

OIL AND GAS NEWS

# Stirling finds oil on North West Shelf

Operators of the Bruce wildcat well on Australia's North West Shelf announced yesterday "minor indications of liquid hydrocarbons in the cuttings from initial drilling reports from Lipscombe from Perth. They are in the process of cutting a conventional core."

The Bruce well is situated between Woodside Petroleum's North Rankin 2as field and the east Stirling Petroleum recently located on Australian stock exchanges, is the operator of the well. Other companies with an interest in the well are Magnat Metals, with 24.4 per cent, Lennard Oil, with 12.3 per cent, Monarch Petroleum, with 8.8 per cent, and Alnicorp with 1.4 per cent.

The Bruce well, which is being drilled in 76 metres of water with a programmed total depth of 2,500 metres, is the first drilled by an all-Australian group since offshore tax concessions were restored three years ago.

Crude oil production from Bahrain's traditional onshore oilfields declined last year by 4.8 per cent but increased output from offshore wells shared with Saudi Arabia meant an overall increase for the Gulf Island State, according to official figures.

The Bahrain Monetary Agency said in its annual report that onshore production was 20.19m barrels in 1978 and output from the recently developed Joint Saudi-Bahrain Abu Saafa offshore field reached 25.45m barrels.

The total output was 2 per cent up on 1977 when onshore production stood at 21.23m barrels and offshore output at 23.59m.

The value of petroleum exports, including refined oil products, rose by 2.2 per cent in 1978 to reach \$83.5m, according to the report.

S.T.E. Nationale Elf-Aquitaine (SNEA) says that its subsidiary, Elf Aquitaine Oman is to go ahead with the development of an oil field at Sahmah on the Sultanate of Oman.

Oil was discovered in 1978 at Sahmah, which is in the Ruba'ah territory around 550 km south west of Muscat, near the Saudi Arabian border. The well should produce 12,000 barrels a day from the beginning of third quarter 1980, according to SNEA.

# New business increase at Royal Insurance

A satisfactory rise in new life and pensions business in the UK and Ireland over the first half of the year is reported by the Royal Insurance Company. New annual premiums advanced by 13 per cent down £10.1m to £11.4m and single premiums by 12 per cent from £9.6m to £10.8m.

The group points out that sales

of individual pension contracts for the self-employed and for directors and executives again rose substantially, but as expected group pension was at a lower level compared with 1978 when a considerable volume of business was done coinciding with the introduction of the new State pension scheme.

On the individual life side, the group reports a satisfactory level of endowment assurance business in repay house mortgages despite the restrictions on building society lending. The rise in single premium business reflects the Royal's continued competitiveness in the immediate annuity market.

BIDS AND DEALS

# Crellon quote cancelled

Crellon Holdings, the electrical group which has been the subject of a number of rescue packages in the past year, is to have its share listing cancelled. This follows the sale of its last major trading subsidiary, Crellon Electronics, to Thorn Electrical Industries for £925,000. In April, a receiver was brought in to its largest subsidiary, Superlamp Metalite.

Guarantees made to Superlamp were called on and this created what was described as "excessive" liabilities on Electronics and Holdings.

So severe were the problems at that time that Crellon asked for the shares to be suspended. Mr. Joseph Elger, the new chairman who had just taken over the position and the share bid by Mr. Geoffrey Rose who briefly tried to rescue the group last year, pumped in a further £692,000 by way of loan stock, convertible preference and ordinary shares.

This package resembled that put together by Mr. Rose which provided £700,000 odd of new capital by way of a convertible preference rights issue. Mr. Rose, however, sold out of the company in February, two months before the dividend was to be paid on the preference shares.

By this time Mr. Elger and Anthony Gibbs and Sons, his advisers who also hold a sizeable amount of the capital, were attempting reconstruction which they said would leave the company with "a viable future."

The reconstruction, which would give Gibbs and Mr. Elger 43 per cent of the votes, has still to go before a special meeting promised in May to be held "as soon as possible." Yesterday, the Board said that the notice calling the meeting will "be issued shortly."

The Stock Exchange appears to have authorised the cancellation of Crellon's listing as preferable in a long-term suspension. Permission should shortly be made for the shares to be dealt in under the rules for unlisted companies.

As an unlisted company Crellon's only activities are a small microprocessor business which it intends to develop.

of Atwood (Nederland) BV, all of which are also Dutch companies. The acquisition is not expected to have a material effect on the results of AGB for the year ended April 30, 1979.

# MACKAN TO BUILD UP ELLIS & MCHARDY

Mackan, the Canadian-owned company which is bidding £2.2m for Ellis and McHardy, intends to use the Aberdeen fuel distribution and North Sea oil service concern as the basis for building up a major trading organisation in north-east Scotland.

This is stated in the formal document. The cash offer has been accepted by the board and holders of 40.4 per cent of the shares.

Mackan Group (UK) is part of the Mackan Group of Toronto, which is owned in turn by the Tanenbaum family with extensive interests in steel, construction, hotels and other industries. The offer is equivalent to 185p a share, but its implementation will be preceded by a two-for-one scrip issue with the terms adjusted to 81p on all 3.6m shares. The offer closes on August 21.

# DOROTHY PERKINS/DEBENHAMS

Dorothy Perkins, the specialist fashion retailer, is to open further shop-in-shop units in Debenhams' major stores.

The opening programme, planned for September, follows successful pilot operations in Debenhams in Bristol and Ram-ford.

# GUTHRIE CALLS OFF MINORITY DEAL

Guthrie Corporation is not to proceed with its intended bid for the minority of Guthrie Berhad because terms could not be agreed.

Guthrie announced on July 27 that it wanted to buy in the 27 per cent it does not already own at Singapore\$2 per share. There was local opposition to the price and Standard and Chartered Merchant Bank Asia, advising the minority, declined to recommend the offer. Guthrie refused to go higher so the proposed offer has fallen through.

Shares of Guthrie Berhad have been traded at prices as high as \$2.25 since the bid was proposed. Before Guthrie's announcement yesterday, they were down at \$2.08. The news came after the close of the Singapore exchange.

Mr. Ian Coates, managing director of Guthrie, would not be drawn yesterday on whether another approach may be made in the future.

# KITCHEN QUEEN TRANSACTIONS

Mr. Neville Johnson, the chairman of Kitchen Queen, has bought a further 250,000 shares in the company, boosting his total stake in 7.6m, or just over a quarter of the capital.

This brings the total family stake up to over 43 per cent, taking account of the dilution caused by the extra shares issued during the recent Knott Mill acquisition.

Earlier this month, it was announced that Industrial and Commercial Finance Corporation had sold its 1.69m shares, or 5.7 per cent, in the company for nearly 1m.

Meanwhile, Mr. Peter Scott, a director of Knott Mill who was chairman before the bid, has sold 1m Kitchen Queen shares, leaving a balance of 7.45m (2.5 per cent). His holding was acquired as a result of the offer. Most of the shares were placed with clients of Halliday Simpson, the Kitchen Queen brokers.

# LOOKERS BUYING MOTOR INTERESTS

Lookers, the Manchester-based motor vehicle distribution and engineering group, has agreed terms in a £675,000 cash deal to acquire Grosvenor Motors (Preston), GMP Cars' motor trade net assets and property owned personally by Mr. Colin Cowperthwaite, managing director of both of the Preston companies.

The companies are mainly engaged in selling and maintaining motor vehicles and the sale of parts and accessories. Grosvenor holds the franchise for Fiat cars and GMP for Peugeot cars; franchises not currently held by Lookers.

Total net assets involved, including property at revaluation, amounts to £600,000 and the combined profits and property income before tax is £158,000.

# AGB/ATWOOD STATISTICS

AGB Research has completed the acquisition of Atwood Statistics (Great Britain) and its two wholly owned subsidiaries, Atwood Statistics and Atwood Continental BV.

AGB and ASL are market research companies and operate from Berkhamstead, Hertfordshire. Continental is a Dutch registered investment holding company owning 51 per cent of Atwood Panel BV, 50 per cent of Interact BV and 40 per cent

# Thorn plans expansion of overseas TV rentals

NO DRAMATIC short-term improvement in profit levels is foreseen by Thorn Electrical Industries and the current year "will not be an impressively good one" for the group, says Sir Richard Cave, chairman.

But the group is progressively laying the base of a much expanded international business particularly in television rental subsidiaries and selective acquisitions in engineering.

The chairman feels that there is much action to be taken to get the UK economy working at its proper pace again. For the group this must mean a return to substantial growth and higher profit both in the UK and overseas.

He looks forward to increased demand for the group's major products. As regards new technologies, including the microprocessor, he does not see a lowering of the total level of employment as numbers are expected to increase through a higher level of activity.

On the financial side the chairman says that the company's strong cash flow resulted in an overall improvement of £27m in the liquid position during the year. Forward cash requirements in the UK and overseas could be considerable but well within the group's borrowing capabilities, he points out.

Many overseas operations are self-financing. If the group is successful in its plans for overseas growth and acquisitions, this will be achieved by an increase in borrowings after taking into account Budget changes in respect of overseas investments.

In the UK expenditure on rental equipment will be at a higher annual level than previously, much of which will be required to replace colour TV sets installed in the early 1970s.

In addition substantial sums will be required to finance the increase in colour television renters which should continue for some years. The new high unit value video products which will be particularly suitable for rental will also require sizeable financing.

Thus despite a positive cash flow, borrowings in the UK can be expected to increase in the next few years, says the chairman. In the longer term he expects this trend to be reversed, as a result of a stronger positive cash flow from an enlarged rental business.

In the year ended March 31, 1979, group profit, before tax, improved from £110.3m to £118.1m. The dividend is increased from 11.45p to 13p per share which is stated to be covered 2.2 times. If ED 24 is adopted in respect of inflation, accounting it is estimated that the dividend cover would be at least 2.3 times.

Referring to the application of SSAP 15 the chairman says that no deferred tax provision is considered necessary on fixed assets or stock. However, the Board has taken a more cautious view in respect of UK television receivers and video equipment for rental in view of the possible effects of rapidly changing technology and has made full provision for deferred tax in this category of assets.

The group balance sheet at March 31 shows total assets up from £926.9m to £989.1m including rental equipment of £200.1m (£185.2m), bank deposits and cash of £23.3m (£13.8m). Overdrafts showed a reduction from £58.5m to £40.8m.

Group capital commitments at the year end stood at £22.2m (£20.6m) of which £18m (£16.1m)

had been sanctioned and £4.2m (£4.5m) was uncontracted. Meeting, Dorchester Hotel, W. September 14 at noon.

See Lex

# Lindustries warns of shortfall

MR. W. E. LUKE, retiring chairman of Lindustries, warned shareholders at the AGM that, because of particularly difficult trading conditions, the hardening of sterling and significant losses at one subsidiary, profits for the current year might show a reduction on those of last year, when the pre-tax figure turned in at £7.24m.

The losses, which were confined to a subsidiary specialising in mining equipment, presented an extremely difficult problem, he stated, and it was by no means certain that there would be a restoration of orders to either previous levels or even adequate levels in the near future.

Trading within the group was running at lower levels of profitability than was the case at this time last year.

The company's interests lie in engineering, rubber and polymer and thread products.

# TRUSTS REPAY

First Scottish American Trust Co. has repaid a US\$2m line of credit, and Northern American Trust Co. a \$2m line of credit, to Morgan Guaranty Trust Co. of New York.

# Warnford Investments Limited

Extracts from the Review by the Chairman, Mr. Ross Goobey for the year ended 25th December 1978.

PROFITS Turnover of the Group increased to £2,540,433 while total revenue before tax increased by £223,463 to £1,877,862. This improvement resulted mainly from increases in both net property revenue and investment income.

PROSPECTS The Group is now benefiting from the demand for offices and shops as well as increases in rental values. These factors should result in a continuing steady increase in net revenue and dividends.

Salisbury House, London EC2

# WAGON INDUSTRIAL HOLDINGS LIMITED

Notice is hereby given of the appointment of Lloyds Bank Limited as Registrar.

All documents for registration and correspondence should in future be sent to the address below:

A.J. SMITH & C.S. Group Secretary



Lloyds Bank Limited, Registrars Department, Goring-by-Sea, Worthing, West Sussex BN11 6DA. Telephone: Worthing 502541 (STD code 0903)

# McMullen sees rise for year

McMullen and Sons hopes the trend in mid-way profits—which showed an increase from £534,000 to £903,000, as already reported—will at least be maintained over the year, given reasonable weather over the next couple of months.

Last year, the surplus of the brewer reached a record £1.54m (£1.46m).

The directors say the better weather of early July has produced some improvement in sales which will be helped when the tax relief in the Budget catch up with the effect of the VAT increase.

# STANDARD BANK NIGERIA

Standard Bank Nigeria has changed its name to the First Bank of Nigeria. It remains an associate of Standard Chartered Bank Limited, which is a substantial minority holder.

# Aer Lingus

## HIGHLIGHTS FROM ANNUAL REPORT for year ended 31 March 1979

- ★ Net profit IR£4.02 million after depreciation, interest and taxation.
- ★ Revenues IR£190 million.
- ★ Record 2½ million passengers carried.
- ★ Three additional aircraft ordered, option on a fourth.
- ★ Profits from ancillary activities up 28%.
- ★ Airline now operates 23 hotels.
- ★ Equity capital increased IR£15 million by Irish Government to IR£43.6 million.
- ★ 1979/80 prospects uncertain due fuel cost escalation and sluggish markets.

RESULTS AT A GLANCE		
Year ended 31 March	1979	1978
	IR£'000	IR£'000
Operating revenues	190,000	163,000
Operating profit	7,316	8,225
Net profit	4,019	4,615
Passengers carried	2,237,882	2,019,603
Cargo and Mail (tons)	59,677	63,643

PROFIT CONTRIBUTION BY SECTOR		
Year ended 31 March	1979	1978
	IR£'000	IR£'000
Air transportation profit (loss)	(2,918)	232
Aviation related services	7,562	6,027
Hotels, leisure, catering	3,332	2,414
Financial and computer services	1,077	902
Total	9,053	9,575
Less central services	1,505	1,273
Profit before interest	7,548	8,302
Less interest	3,529	3,687
Net profit	4,019	4,615



Aer Lingus—Ireland's National Airline

CURRENCIES, MONEY and GOLD

Pound slumps

STERLING RECORDED its biggest one-day fall since January 1978 in currency markets yesterday as a combination of factors prompted a 6.5c fall against the dollar to \$2.2970-\$2.2950. It was also weak against other major currencies and its trade-weighted index fell to 72.8 at noon and 72.9 in the morning. The pound was already showing a softer tendency in overseas markets, prompted by improved sentiment in the dollar. With a general switch out of long sterling positions and heavy liquidation of short dollar holdings, the pound's fall met little resistance, and any activity by the Bank of England at the lower levels was fairly insignificant. Sterling's recent sharp rise was probably overdone, and it seems probable that any correction was likely to be equally dramatic. Against the dollar it opened at \$2.2900 and rose to \$2.2945 before easing to \$2.2970 before 10 am. By lunchtime it had steadied at around \$2.2960 before plunging 2 cents to \$2.2940. Trading at this point became very patchy and volatile, and sterling was quoted at times with half cent spreads. By mid-afternoon it had recovered slightly to \$2.2960, but with business trading quiet, financial centres in Europe closing, it fell a further cent to its closing level. Against the De-mark the pound finished at DM 4.2225, sharply down from Monday's close of DM 4.2425, while the Swiss franc was quoted at Sfr 1.9375 compared with Sfr 1.9375. Apart from its performance against sterling, the dollar showed little overall movement. Dealers were unwilling to commit themselves to a firmer trend in the U.S. unit, but pointed out that sentiment had improved noticeably since the nomination of Mr. Paul Volcker as chairman of the Federal Reserve Board, and his firm commitment to reduce inflation. The dollar finished at DM 1.9335 against DM 1.9325, but had been quoted higher at DM 1.9450 earlier in the day. Similarly against the Swiss franc it closed at Sfr 1.9300 from Sfr 1.9375 after a high for the day of Sfr 1.9680. So although firmer, the dollar finished some way below its best levels. On Bank of England figures, its trade-weighted index rose to 94.6 from 94.3.

FRANKFURT — The dollar was fixed higher yesterday at DM 1.9337, compared with DM 1.9325, and there was no intervention by the Bundesbank. In the absence of any central bank support, the U.S. unit rose to DM 1.9410 during the morning, backed by favourable comments from the U.S. Administration on the need for a stable dollar to combat inflation. Elsewhere sterling fell sharply at the time to DM 4.1950 from DM 4.2225. MILAN — The lira was sharply weaker against the dollar but improved against sterling and EMS currencies. TOKYO — The dollar finished slightly firmer against the yen yesterday at ¥216.875 compared with ¥216.225 on Monday. After opening at ¥217.50, the U.S. unit touched ¥217.50 on favourable news from Monday's close of DM 4.2425, while the Swiss franc was quoted at Sfr 1.9375 compared with Sfr 1.9375. Apart from its performance against sterling, the dollar showed little overall movement. Dealers were unwilling to commit themselves to a firmer trend in the U.S. unit, but pointed out that sentiment had improved noticeably since the nomination of Mr. Paul Volcker as chairman of the Federal Reserve Board, and his firm commitment to reduce inflation. The dollar finished at DM 1.9335 against DM 1.9325, but had been quoted higher at DM 1.9450 earlier in the day. Similarly against the Swiss franc it closed at Sfr 1.9300 from Sfr 1.9375 after a high for the day of Sfr 1.9680. So although firmer, the dollar finished some way below its best levels. On Bank of England figures, its trade-weighted index rose to 94.6 from 94.3.

THE POUND SPOT AND FORWARD

Table with columns: July 31, Day's spread, Close, One month, % p.a., Three months, % p.a. Rows include U.S., Canada, Netherlands, Belgium, Denmark, Ireland, W. Ger., Portugal, Italy, Norway, France, Sweden, Japan, Austria, and Swiss.

THE DOLLAR SPOT AND FORWARD

Table with columns: July 31, Day's spread, Close, One month, % p.a., Three months, % p.a. Rows include UK, Ireland, Canada, Netherlands, Belgium, Denmark, W. Ger., Portugal, Spain, Italy, Norway, France, Sweden, Japan, Austria, and Swiss.

CURRENCY MOVEMENTS

Table with columns: July 31, Bank of England index, Morgan Guaranty change %.

CURRENCY RATES

Table with columns: July 30, Bank rate, Special Drawing Rights, European Currency Unit.

OTHER MARKETS

Table with columns: July 31, Note Rates. Rows include Argentina Peso, Australia Dollar, Brazil Cruzeiro, Canadian Dollar, Greek Drachma, Hong Kong Dollar, Kuwait Dinar, Luxembourg Franc, Malaya Ringgit, New Zealand Dir., Saudi Arab. Riyal, Singapore Dollar, Sth. African Rand, Austria, Denmark, Germany, Italy, Netherlands, Norway, Portugal, Spain, Switzerland, and Yugoslavia.

EMS EUROPEAN CURRENCY UNIT RATES

Table with columns: Currency, Unit, % change from 1978, % change from 1979.

EXCHANGE CROSS-RATES

Table with columns: July 31, Pounds Sterling, U.S. Dollar, Deutschmark, Japanese Yen, French Franc, Swiss Franc, Dutch Guilder, Italian Lira, Canadian Dollar, Belgian Franc.

EURO-CURRENCY INTEREST RATES

Table with columns: July 31, Sterling, U.S. Dollar, Canadian Dollar, Dutch Guilder, Swiss Franc, West German Mark, French Franc, Italian Lira, Asian \$, Japanese Yen.

INTERNATIONAL CAPITAL MARKETS

New York Fed adds reserves

The New York Federal Reserve Bank injected liquidity into the market yesterday by making overnight repurchase agreements. Federal funds were trading at 10 1/8 per cent at the time, and uncertainty still remained as to the likely Fed target rate. Treasury bill rates were little changed in early trading, with 13-week bills at 9 1/8 per cent compared with 9 1/4 per cent at Monday's auction, and 26-week bills at 9.30 per cent against 9.30 per cent.

money rates were generally firmer yesterday with call money at 6.10-6.20 per cent against 6.00-6.10 per cent and one-month money rising to 6.40-6.50 per cent from 6.30-6.50 per cent. The three-month rate was quoted at 6.90-7.00 per cent compared with 6.80-7.00 per cent, six-month at 7.20-7.30 per cent, and 12-month 7.45-7.55 per cent from 7.40-7.50 per cent previously. PARIS — Call money rose to 10 1/8 per cent yesterday compared with 10 1/4 per cent on Monday, while longer term rates were unchanged. HONG KONG — Conditions in the money market were generally steady, with call money at 8 1/2 per cent and overnight business dealt at 8 1/4 per cent.

BRUSSELS — Deposit rates for the Belgian franc (commensal) were unchanged for one month at 12 1/2 per cent but rose from 12 1/2 per cent to 12 1/4 per cent for three-month deposits and to 11 1/4 per cent for six-month. The 12-month rate was also firmer at 10 1/4 per cent compared with 10 1/8 per cent previously. PARIS — Call money rose to 10 1/8 per cent yesterday compared with 10 1/4 per cent on Monday, while longer term rates were unchanged. HONG KONG — Conditions in the money market were generally steady, with call money at 8 1/2 per cent and overnight business dealt at 8 1/4 per cent.

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UK MONEY MARKET

Moderate help

Bank of England announced Lending Rate 14 per cent (since June 12, 1979). Day-to-day credit was in short supply in the London money market yesterday, and the authorities gave assistance by making a small amount of Treasury bills and a small amount of one or two houses at MLR for repayment today. Total assistance was moderate.

Discussed as moderate. Discount houses were paying 13 1/4 per cent for secured call loans at the start, and closing balances were taken down to 13 per cent. The market was faced with a small net take-up of Treasury bills to finance, with moderate amounts also drained in respect of end-of-month payments. On the other hand banks brought forward balances to a little above target and there was a moderate excess of Government

disbursements over revenue transfers to the Exchequer. In the interbank market, overnight loans opened at 13 1/4 per cent and rose on the forecast to 14 1/4 per cent before easing slightly to 13 1/4 per cent, with the afternoon rates tending to ease, with closing balances taken between 12 per cent and 13 per cent. Rates in the table below are nominal in some cases.

LONDON MONEY RATES

Table with columns: July 31, Starting rate, Interbank, Local Authority deposits, Finance House Deposits, Discount, Treasury Bills, etc.

DISCOUNT

Table with columns: Treasury Bills, etc.

MONEY RATES

Table with columns: NEW YORK, GERMANY, FRANCE, JAPAN.

هكذا من العمل

Advertisement for European Coal and Steel Community. Features a large number '\$125,000,000' and text 'European Coal and Steel Community 9 3/4% Bonds, Due August 1, 1999'. Lists various financial institutions like Lehman Brothers, Lazard Freres & Co., etc.

Advertisement for Saudi International Bank. Features the bank's name in Arabic and English, and a table of financial data including 'Extract from the Interim Balance Sheet at 30 June 1979' with columns for 30 June 1979 and 31 December 1978.

INTERNATIONAL COMPANIES and FINANCE

Companies and Markets

NORTH AMERICAN NEWS

Flintkote agrees to \$375m offer

STAMFORD — Flintkote the building materials group and Kohlberg Kravis Roberts (KKR) have agreed in principle for a group of investors, through a corporation to be organized by KKR, to acquire Flintkote for \$2.8 a share cash.

At June 30, Flintkote had about 7.2m shares of common outstanding which puts an immediate value of \$374.4m on the bid. An additional 146,500 shares are issuable on conversion of Flintkote's outstanding convertible preferred stock.

The acquisition is subject to arrangement of necessary financing and disposition of certain assets by Flintkote. Flintkote said KKR has had a favourable preliminary indication from a major financial institution that it would provide a significant portion of the financing.

The transaction is also subject to completion of a definitive agreement, filings with regulatory bodies, and approval of the agreement by Flintkote's Board and shareholders.

KKR will receive certain minimum fees from Flintkote which will be reimbursed by the investor group on completion of the transaction.

Flintkote makes basic materials and products for the building and construction industries in the U.S. and Canada.

KKR is a New York-based investment firm which, with affiliates, is a principal investor in a number of industrial companies.

A group headed by KKR recently completed the acquisition of "Dow" Industries for \$750m.

Further cutbacks may hit Liggett's second half profit

BY OUR FINANCIAL STAFF

SECOND QUARTER net income of the cigarettes, tobacco, drinks and pet food concern Liggett Group were hurt by an after-tax charge of \$3.6m or 42 cents a share as a result of cutbacks associated with a planned consolidation of the group's domestic cigarette operations. The company said that additional charges to future earnings may result if further reductions are necessary.

The group's net income shows a decline from \$23.8m or \$2.58 a share to \$7.33m or 89 cents a share, on sales of \$276m against \$257.7m. But this picture is distorted by the sale of the foreign cigarette business last year.

Second quarter earnings for 1979 included an after-tax gain of \$30.4m or \$3.34 a share from the sale, earnings from the

business sold of \$2.3m or 26 cents a share, and an after-tax charge of \$17.3m or \$1.91 a share for the write-down of goodwill.

Excluding these items, net earnings would have been \$10.9m or \$1.26 a share in the current second quarter, compared with \$8.5m or 89 cents last time.

For the first six months, Liggett turned in net income of \$19.9m or \$2.29 a share compared with \$33m or \$3.55 a share. First half sales advanced from \$482.5m to \$510.1m.

Cigarette sales in the quarter continued to decline, but operating income was higher. Sales of chewing and smoking tobacco rose slightly, but operating income was lower.

Mr. Raymond J. Mulligan, president, said that sales and operating income from the company's main drinks brands were significantly lower due to reduced buying by the trade in resistance to price increases, but these lower results were more than offset by higher operating income from cigarettes and pet foods.

Another major tobacco company, U.S. Tobacco, had record net income from the second quarter of \$7.65m or 88 cents a share compared with \$6.57m or 78 cents, from sales of \$56.93m against \$51.75m. First half net income of \$15.47m or \$1.74 a share was also a record, and compared with \$13.65m or \$1.55 last time. Sales for the six months rose from \$101.23m to \$112.05m.

W. R. Grace sees sharp gain

NEW YORK—W. R. Grace, the chemicals, food, oil and paper group, expects 1979 earnings to rise as much as 20 per cent to \$210m or \$4.80 a share despite a \$15m for 30 cents a share loss from the now completed sale of its Italian pasta business, according to Mr. Charles H. Erhart, Jr., executive vice-president.

Total sales for the year are expected to top the \$5bn mark for the first time. Sales in 1979 were \$4.31bn.

Grace's 99 per cent interest in Enarilla S.p.A., one of the world's largest pasta producers, was sold for \$65m to Finbarilla, a joint Italian-Swiss holding company headed by Italian in-

dustrialist, Sig. Pietro Barilla. The Barilla family had sold the pasta company to Grace in 1971. The sale of Barilla is the last in a series of divestments of grocery products businesses.

The loss from the sale of Barilla will be reported in the third quarter, causing earnings for the period to be "definitely down" from last year's \$43m or \$1.07 a share.

Earnings projections for the year take into account a mild recession lasting through the fourth quarter. The specialty chemicals and natural resources businesses are expected to do well despite the economic downturn. Grace had revised its earn-

ings projections "slightly upward" because results for the first half were better than expected. As previously reported, earnings for the first six months of 1979 were \$114.7m or \$2.11 a share on sales of \$2.49bn.

Earnings for the full year are expected to rise by 15 per cent to 20 per cent over last year's restated \$169m or \$4.01 a share and results would "probably be more on the upside" of that estimate and could increase by more than 20 per cent. Earnings for 1978 were restated to reflect changes in accounting for oil and gas profits and a pooling of interests from acquisitions. AP-DJ

Asbestos loses appeal on State takeover

MONTREAL — Asbestos Corporation has lost a bid for a temporary injunction to block its possible expropriation by the Quebec government.

Justice Albert Mayrand of the Quebec Court of Appeals refused the injunction, citing a legal requirement that three judges preside in such a case.

Asbestos Corporation which is 54.6 per cent owned by General Dynamics, lost its bid for a permanent injunction in Superior Court last week.

It appealed to Justice Mayrand while the Full Appeals Court is adjourned for the summer. The company has said it will appeal to the Full Appeals Court when the court resumes deliberations in September.

Quebec has threatened to expropriate Asbestos Corporation if it cannot reach agreement with General Dynamics on terms of a takeover.

Dillon share split Dillon Companies, the retail group, pushed earnings up by 21 per cent to \$33.6m, or from \$1.72 to \$2.08 in the year to June 30, on sales of \$1.79bn against \$1.47bn. A three-for-one share split and a quarterly dividend of 27 cents on the split shares was also announced.

Conoco spending Conoco has increased its 1979 capital spending programme by \$130m to a total of \$1.5bn, compared with \$1.1bn in 1978. Renter reports from Stamford.

U.S. Steel lifts earnings but sees gloomy outlook

BY DAVID LASCELLES IN NEW YORK

U.S. STEEL, the largest U.S. steelmaker, has notched up its fifth consecutive quarterly rise in profits. Second quarter net income was \$145.4m or \$1.69 per share, up 24 per cent on last year's \$117.3m or \$1.38 a share.

These results brought six month earnings to \$187.4m or \$2.19 a share, and revenues to \$5.7bn. Comparable figures for the first half of last year were \$88.6m or \$0.69 a share, and \$5.3bn.

In the quarter, U.S. Steel produced 8.5m tons, up slightly on last year's 8.4m, and shipped 6m tons compared to the previous year's 5.4m. These shipments were the highest since the third quarter of 1974.

Mr. David Roderick, chairman, said that although U.S. Steel now has five quarterly earnings improvements behind it, return on sales and equity were still substantially below manufacturing industry averages.

Mr. Roderick also indicated that the immediate business prospects were gloomy. The steel order rate has fallen off "with no immediate signs of an upturn," he said, adding that he is concerned about the shipments level for the fourth quarter. Mr. Roderick warned that as demand softens in the second half of the year, it is even more imperative that the U.S. Anti-Dumping Laws be vigorously enforced.

INTERNATIONAL CAPITAL MARKETS

DM bond yields move lower

BY FRANCIS GHILES

THE WORLD BANK is arranging a DM 200m private placement with a bullet maturity of 10 years through Deutsche Bank. Priced at 99 1/2 to yield 7.20 per cent, the issue has been well received and early pre-market quotes suggest it will trade at a discount of 1/2 to 3/4 of a point.

The yield this bond offers to investors is the lowest for DM-denominated paper in at least four months. An issue for the Council of Europe with an average life of seven years was floated last April yielding 7.25 per cent while a Megal Finance bond (average life nine years) floated last February offered 7.14 per cent.

A Swiss 100m bond for Shikoku Electric Power Company is expected through the same bank later this week. Prices of sterling bonds fell by up to a full point as today's fall in the UK currency encouraged selling. Top 12 per cent FTI 88 bond closed at 98 1/4 yesterday. On Friday it traded at 99 1/4.

Foreign DM bonds were firm yesterday while good demand for domestic DM issues allowed the Bundesbank to sell DM 20m worth of paper.

Prices in a quiet Swiss franc sector eased slightly. Union Bank of Switzerland has arranged a SwFr 50m six-year private placement for Golden Eagle (Caracas), a subsidiary of Ultramar. The coupon is 4 1/2 per cent and the bonds have been priced at par.

Eurocurrency loan for EFIM

BY JOHN EVANS

EFIM, the Italian state holding company in the engineering and construction sectors, is raising \$150m via a ten year syndicated loan from the Eurocurrency markets. The agency has not so far named the Eurocurrency banks in its own name before. The funds will be used for general capital expenditure purposes.

The credit will carry a spread of 1 per cent for the first two years, 1/2 per cent for the next two years, and 1/4 per cent for the last four years.

The lead managers are S. G. Warburg, Soditic and Midland Bank. Elsewhere, one of Mexico's leading private companies, Grupo Industrial Alfa, is arranging \$75m with a banking group headed by Bank of America, Deutsche Bank and Grindlays Bank. The ten year facility carries spreads ranging between 1/2 and 1 1/4 per cent.

The Government of Fiji has awarded a mandate to Continental Illinois Limited to raise \$36m. The 10-year loan reportedly carries a spread of 1 per cent for the first six years and 1/2 per cent for the remaining four years.

In the Middle East, Deutsche Babcock has arranged a \$7m Kuwaiti dinar (\$135m) medium term facility, among a group of Kuwaiti banks, managed by the National Bank of Kuwait. It is understood the loan will be used in connection with contracts awarded to the German company in the Middle East, particularly Kuwait.

FT INTERNATIONAL BOND SERVICE

The list shows the 200 latest international bond issues for which an adequate secondary market exists. For further details of these or other bonds see the complete list of Eurobond prices published on the second Monday of each month. Closing prices on July 31.

Table with columns: Country, Issued, Bid, Offer, Day, Week, Yield. Lists various international bonds from Australia, Canada, Europe, etc.

AMERICAN QUARTERLIES

Table with columns: Company Name, 1979, 1978, Revenue, Net Profit, Net per share. Lists companies like American General Insurance, Global Marine, TON COMPANY, etc.

Genossenschaftliche Zentralbank

Aktiengesellschaft Vienna U.S. \$40,000,000 Floating Rate Notes Due 1989. In accordance with the provisions of the Notes, notice is hereby given that for the initial three month interest period from 1st August, 1979 to 1st November, 1979 the Notes will carry an Interest Rate of 11 1/2% per annum.

Credit Suisse First Boston Limited Agent Bank

NOTICE To the holders of the Floating Rate London Dollar Certificates of Deposit due August, 1982, of:

DOW BANKING CORPORATION 108, Fenchurch Street, London, EC3.

EUROPEAN BANKING COMPANY LIMITED

ALLEN HARVEY & ROSS INVESTMENT MANAGEMENT LTD. 45 Cornehill, London EC3V 3PB. Tel. 01-923 6314

DEUTSCHE MARK

Table with columns: Company Name, 1979, 1978, Revenue, Net Profit, Net per share. Lists companies like Deutsche Mark, DWS, etc.

Krung Thai (Cayman) Limited

(Incorporated with limited liability in the Cayman Islands) U.S. \$25,000,000 Guaranteed Floating Rate Notes due 1984

Unconditionally and irrevocably guaranteed as to payment of principal and interest by



Krung Thai Bank Limited

(Incorporated with limited liability in the Kingdom of Thailand)

The following have agreed to subscribe or procure subscribers for the Notes:

- Manufacturers Hanover Limited, Abu Dhabi Investment Company, Banque Nationale de Paris, County Bank Limited, Genossenschaftliche Zentralbank AG Vienna

The Notes, issued at 100 per cent, have been admitted to the Official List by the Council of The Stock Exchange subject to the issue of the Notes.

Full particulars of the Company and the Notes are available in the External Statistical Service and may be obtained during usual business hours up to and including 15th August, 1979 from the brokers to the issue:

R. Nivison & Co. 25 Austin Friars London EC2N 2JB 1st August, 1979

ALLIED IRISH BANKS Ltd.

Capitalisation Issue

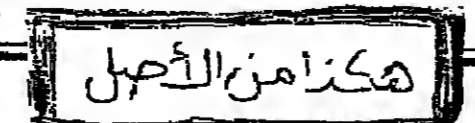
In view of the recent disruption of postal services in Ireland, at the request of the Stock Exchange, the last dates for splitting and for registration of Renunciation as detailed on the renounceable allotment certificates have been extended as under:

Last date for splitting: 15th August 1979

Last date for registration of renunciation: 15th August 1979

D. B. Motyer, Secretary, Bankencourt, Ballsbridge, Dublin 4.

31st July, 1979.



Nederhorst liquidators find new owners

By Charles Satchell in Amsterdam... THE Hollandsche Beton Groep (HBG), the Dutch construction concern, has agreed to take over a large part of the failed Nederhorst building group.

Negotiations with the various purchasers for the Nederhorst companies, which had a combined turnover of nearly Fr 1bn (\$600m) in 1977, are expected to be completed within a few months, the Economic Ministry said.

Most of the Multibouw division, which is involved mainly in housing construction, will be taken over by the Van Der Worm-Baeyens Group of Rotterdam.

OGEM and the Dutch Government first drew up a rescue plan for Nederhorst in 1977 when mounting losses threatened its existence.

Matra takes major stake in telephone industry

By DAVID WHITE IN PARIS

THE FRENCH Matra group is to take an important role in the European telephone equipment industry by acquiring control of the privately-owned Depapee concern.

Matra gave no details of its agreement, reached in collaboration with Banque de l'Indochine et de Suez. The move marks the second stage in Matra's effort to build a homogeneous communications division, with a broad production and marketing base.

Matra expects its turnover in the communications field this year to be well over Fr 600m, compared with Fr 44m, out of total group sales of Fr 2.2bn, in 1978.

Advance by Sumitomo Metal

By YOKO SHIBATA IN TOKYO

TOKYO — Sumitomo Metal Industries, the Japanese steel concern, raised its consolidated net income by 165 per cent in the year to March 31, to Y17.17bn (\$80m), from Y6.47bn the previous year.

Sumitomo attributed the better performance to a sharp recovery in steel prices on domestic and overseas markets, offsetting exchange losses stemming from the yen's appreciation against the U.S. dollar.

The company is unable to predict its consolidated business result for the current year, because of uncertain factors including crude oil price increases, foreign exchange fluctuations, and a higher official discount rate in Japan.

Domestic sales lift Matsushita

By YOKO SHIBATA IN TOKYO

MATSUSHITA Electric Industrial, the world's largest manufacturer of consumer electronic and electric products, raised its consolidated net profits by 4 per cent to Y24.59bn (\$1.14m) in the second quarter, on sales up 7 per cent to Y576.64bn (\$2.7bn).

The gain in profits and sales was chiefly the result of brisk domestic sales of high value-added products which more or less covered a substantial decline in exports, of 10 per cent to Y130,810m.

Consolidated net profits for the first six months, to May 20, gained 4 per cent to Y44.04bn on consolidated sales of Y1,055bn, up 7 per cent over a year earlier.

Decline in interest rates aids Mitsubishi

By Richard C. Hanson in Tokyo

MITSUBISHI CORPORATION, Japan's largest trading company, raised its consolidated net income in the year to March 31 by 6.7 per cent to Y23.7bn (\$1.10m), but total trading transactions dipped 4.9 per cent to Y9,276bn (\$438bn).

Like the other major trading companies, Mitsubishi has been hit by a shrinkage in export and import business. Imports were down 12.6 per cent and exports 7.7 per cent, while business outside Japan was off 4.9 per cent.

Domestic sales increased slightly in volume and relative importance—up 0.8 per cent to 47.2 per cent of the total, from 44.5 per cent the previous year.

Most major product categories showed declines, with machinery (18.1 per cent of the total) down 2.4 per cent, fuels down 15.1 per cent (for a 15.9 per cent share) and foods off 2.5 per cent (14.8 per cent).

The drop in business arose principally from the falling value of the dollar against the yen over most of the fiscal year. Conversely, the subsequent decline in the value of the yen since late 1978 cut the margin of the sales drop.

Officials at the company, however, are predicting cautiously that overall net income will remain at last year's level.

On a non-consolidated basis, trading transactions declined 5.2 per cent to Y8,500bn—the second annual slide in a row—while net profit was up only a fraction to Y16.1bn.

Strike hits Aer Lingus earnings

By STEWART DALBY IN DUBLIN

AER LINGUS, the Irish state owned airline, earned a net profit of IRE4.02m (\$8.26m) in the year ended March 1979 after charging depreciation of IRE7.09m and interest of IRE3.35m.

The results mean that despite higher turnover (IRE190m) there has been a drop in net profits since 1977-1978 when the figure achieved was 24.62m in sterling. Given the appreciation in sterling against the Irish punt, the profit shortfall is even greater.

Presenting the annual general report yesterday, Mr Patrick Hayes, chairman, said that while the net profits might appear reasonably satisfactory a 54-day strike early in 1978 had prevented the airline from reaching the much higher level of profit it needed and which it could have managed.

Had it not been for the strike—which consisted mostly of groundstaff—the net profit would have been closer to 28m in sterling. Losses seem to have occurred on the Atlantic route last year despite the fact the airline carried a record number of 2.5m passengers which was an increase of 11 per cent over the previous year.

According to the chief executive it now seems impossible to avoid losses on year round operations between Ireland and North America even with a record passenger load factor of 70 per cent. Moreover, the outlook for the current year is clouded by higher fuel costs.

The airline is budgeting for a rise of around a quarter in revenue for the current year to IRE225m following solid traffic performances on almost all routes. But since March 1979, fuel costs had risen by 70 per cent—giving Aer Lingus cause for serious concern.

Premium income up at Harel

By L. Daniel in Tel Aviv

HAREL, the Israeli insurance company which hitherto has concentrated entirely on life business, reports that it increased its premium income 1978 by 130 per cent to ILS5.5m (\$1.4m) and expects a similar growth rate this year.

Profits from life insurance business increased by 115 per cent to ILS1m last year, and its overall after-tax profit by 235 per cent to ILS2m helped by investment income.

Setback for SAAN

By JIM JONES IN JOHANNESBURG

SOUTH AFRICAN Associated Newspapers (SAAN)—the publisher of the Rand Daily Mail, Financial Mail, and Sunday Times—has seen its first half results set back by a combination of fuel, labour and newspaper cost increases. In the six months to June 30 operating profits fell 39.4 per cent to R611,000 (\$727,000), from R1,011m in the same period last year.

Last year, on second half earnings per share of 74.8 cents, an unchanged 25 cents final dividend was paid. With this year's unchanged interim dividend Johannesburg analysts feel that the final payout will be maintained.

Pirelli gets go-ahead for restructuring programme

By PAUL BETTS IN ROME

THE ITALIAN interministerial Committee for Industrial Planning gave the go-ahead yesterday to a L650m (\$79m) financial restructuring programme for Industrie Pirelli, the Italian operating company in the Dunlop-Pirelli Union.

The operation will involve the increase of the company's capital from L1,000m to L1,700m and the consolidation of some L1,000m of Industrie Pirelli's debts at an interest rate of about 7.5 per cent.

Norwegian chemical group lifts profit

By Fay Gjester in Oslo

DYNO INDUSTRIER, Norwegian manufacturers of chemicals and explosives, reports higher turnover and slightly improved profits during the first half of this year. Turnover increased by NKR 104m to NKR 729m (\$166m), though more than half the rise reflected the acquisition of new companies. Export sales rose more sharply than sales to the Norwegian market.

Cheung Kong forecasts upturn

By PHILIP BOWRING IN HONG KONG

CHEUNG KONG (Holdings) a major Hong Kong property development group, reported a decline in first half profits, but forecast a significant increase for the full year. Because of a low completion rate, first-half earnings were only HK\$38.34m (US\$7.4m), against HK\$79.02m (US\$15.8m) in the same period of 1978.

The interim dividend reflects the confidence about the outcome for the year as a whole. It will be 18 cents, against 15 cents, on capital increased by a one-for-five bonus issue. Meanwhile, Green Island Cement, a Cheung Kong associate and Hong Kong's sole cement manufacturer, was another beneficiary of the property and building boom.

Its first-half profit more than doubled to HK\$43.9m, from HK\$18.9m, before extraordinary gains of HK\$60.8m, against HK\$33.4m. An interim dividend of 60 cents was recommended, three times the year earlier level—on capital increased by a one-for-five scrip issue.

Green Island expects the second-half to be even better than the first, pointing to a total of around HK\$100m for the year against HK\$43.6m.

Yen CD issue rise in June

TOKYO — Japanese banks belonging to the Federation of Bankers Associations issued yen-based negotiable certificates of deposits totalling Y250,500 to June, increasing their outstanding balance of CD issues to Y707,900m (equivalent to \$3.3bn), the Bank of Japan announced.

Of the total, City banks issued Y114,300m, to increase their outstanding balance to Y433,100m, local banks Y94,500m, to Y138,290m, trust banks Y18,200m, to Y73,200m, and long-term credit banks Y25,500m, to Y43,400m. Reuter

All of these securities having been sold, this announcement appears as a matter of record only.



New Issue / July, 1979 U.S. \$150,000,000

Canadian National Railway Company (Wholly owned by the Government of Canada)

9.70% Sinking Fund Debentures Due 2004 Interest payable January 15 and July 15

Principal and interest payable in The City of New York in lawful money of the United States of America.

- Salomon Brothers, Greenshields & Co Inc, McLeod Young Weir Incorporated, Goldman, Sachs & Co, Merrill Lynch White Weld Capital Markets Group, Bache Halsey Stuart Shields, Blyth Eastman Dillon & Co, Dominion Securities Inc, E. F. Hutton & Company Inc, Paine, Webber, Jackson & Curtis, Shearson Hayden Stone Inc, Warburg Paribas Becker, A. G. Edwards & Sons, Inc, Equitable Canada, EuroPartners Securities Corporation, Hudson Securities, Inc, Kleinwort, Benson, Levesque, Beaubien Inc, The Nikko Securities Co, Wm. E. Pollock & Co., Inc, Yamaichi International (America), Inc, Sanyo Securities America, Inc.

The Notes have been sold outside the United States of America. This announcement appears as a matter of record only.

NEW ISSUE

April, 1979

US \$35,000,000

Texas International Airlines Capital N.V.

Guaranteed Floating Rate Notes Due 1986

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WORLD STOCK MARKETS

Companies and Markets

Wall St. improves 4.5 in active early trade

Among the most active issues, American Telephone hardened to \$27 1/2, IBM to \$62 1/2, Du Pont gained to \$40 1/2, General Electric to \$33 1/2, Eastman Kodak to \$53 1/2, Johnson & Johnson to \$45 1/2, and Sears to \$28 1/2.

The Dow Jones Industrial Average put on a 4.52 to 843.26 at 1 pm, while the NYSE All Closing prices and market reports were not available for this edition.

Commo Index gained 26 cents to \$59.05 and advances outnumbered declines by a nine-to-four margin. Trading volume was up sharply to 24.25m shares at 1 pm.

Analysts said the market's improved tone reflected hopes that Federal Reserve chairman Paul Volcker will take a stronger stand against inflation. The dollar continued under pressure, giving further support to the stock market.

The Commerce Department reported that the June index of leading economic indicators declined a modest 0.1 per cent after a revised 0.3 per cent rise in May. Analysts said the figures contained no surprises.

Shipbuilding was spurred on by increased domestic and foreign buying orders, with Mitsui Engineering and Shipbuilding adding Y10 at Y204, Mitsubishi Heavy Industries Y4 at Y170 and Ishikawajima Harima Y3 at Y135.

Mitsubishi Oil climbed Y29 to Y74, Nippon Oil Y40 to Y1,870, and Maruzen Oil Y22 to Y370. While Trading Houses had a mixed day, Nippon Yusen Kaisha was higher at Y546.

Some stocks related to public works projects, such as Goro Construction, gained ground, but most Light Electricals and Vehicles declined. Sony losing Y20 to Y1,870 and Honda Motors Y6 to Y232.

With shipbuilding, Oils and Trading Houses leading the way, the market mainly moved ahead to active dealings.

The Nikkei-Dow Jones average closed 38.46 stronger at 6,313.77 and the Tokyo SE index advanced 1.96 to 4450.1, while the Nikkei reached 450m shares (310m).

Brokers said shipbuilding stocks have been bought by major Securities Houses in recent sessions along with Oils on speculation that their earnings will improve. They explained that Japanese shipbuilders are also manufacturing oil exploration and coal-fired electric power station equipment, adding that demand for such equipment was certainly strengthened as oil de-

velopment becomes more active. Shipbuilding was spurred on by increased domestic and foreign buying orders, with Mitsui Engineering and Shipbuilding adding Y10 at Y204, Mitsubishi Heavy Industries Y4 at Y170 and Ishikawajima Harima Y3 at Y135.

Share prices rallied from a weaker opening to finish mixed to firmer on balance after light dealings. The Commerbank index was finally 1.0 up on the day at 782.1.

Brokers said trading was subdued for several reasons. Some observers cited preliminary indications of a higher July inflation rate as measured by the consumer price index, while one broker said foreign investor activity had fallen off compared to last week with the better tone for the dollar.

Machine Manufacturers mainly showed little net change, but Babcock were down DM3. In the Stores sector, Karstadt and Kaufhof ended unaltered, but Herten lost DM130 and Neckerhaus DM230.

Public Authority Bonds tended higher, trading in a narrow range to 20 pips, with the Bundeshank set a nominal DM2.4m more of paper (DM20m).

Steel shares continued to improve, but most other sectors declined in a very quiet business. Operators said the decline reflected a thin market rather than any pressure to sell, although a new wave to the Call Money rate

Indices

Table with columns for NEW YORK, LONDON, and other indices, showing values for July 27, 28, 29, 30, 31, and 1979.

Table showing Standard and Poors indices for July 27, 28, 29, 30, 31, and 1979.

Table showing L.S.E. ALL COMMON indices for July 27, 28, 29, 30, 31, and 1979.

Table showing MONTREAL indices for July 27, 28, 29, 30, 31, and 1979.

Table showing JOHANNESBURG indices for July 27, 28, 29, 30, 31, and 1979.

Table showing AUSTRALIA indices for July 27, 28, 29, 30, 31, and 1979.

Table showing STOCKHOLM indices for July 27, 28, 29, 30, 31, and 1979.

Table showing JOHANNESBURG MINES indices for July 27, 28, 29, 30, 31, and 1979.

Table showing PARIS indices for July 27, 28, 29, 30, 31, and 1979.

Table showing SWITZERLAND indices for July 27, 28, 29, 30, 31, and 1979.

Table showing MILAN indices for July 27, 28, 29, 30, 31, and 1979.

Table showing VIENNA indices for July 27, 28, 29, 30, 31, and 1979.

Table with columns for NEW YORK Stock, July 30, July 27, and July 27.

Table with columns for NEW YORK Stock, July 30, July 27, and July 27.

Table with columns for NEW YORK Stock, July 30, July 27, and July 27.

Table with columns for EUROPEAN OPTIONS EXCHANGE, Series, Val., Last, Vol., Last, Vol., Last, Stock.

Table with columns for BASE LENDING RATES, Bank, Rate, and other details.

Table with columns for AMSTERDAM, July 31, Price, +/-, Div. Yld., and other details.

Table with columns for BRUSSELS/LUXEMBOURG, July 31, Price, +/-, Div. Yld., and other details.





Companies and Markets

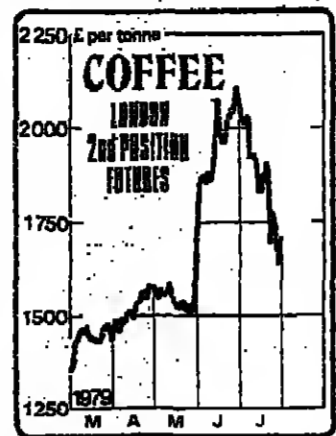
Wool price peak in Australia

SECURES JUST released by the Wool Council of Australia show that average auction prices in the second half of the 1978-79 season were the highest since the 1950-51 wool boom...

Coffee and cocoa surge higher as pound weakens

BY RICHARD MOONEY

LONDON'S LEADING "soft" commodity markets, which have been severely depressed recently were given a dramatic shot in the arm yesterday by the sudden weakness of sterling...



The September position on the London futures market has risen the £40 permissible daily limit by mid-afternoon and closed £73 up on the day at £1,403 a tonne.

UK zinc producer cuts price

By John Edwards, Commodities Editor BRITISH ZINC producer, AM and S Europe, yesterday confirmed a cut in its official producer price, from \$445 to \$780 a tonne...

Conflicts of interests in palm oil industry

BY WONG SULONG IN KUALA LUMPUR

THE COLLAPSE of the marketing pact between Malaysia's palm oil growers and refiners in the face of tight supply, has highlighted the need for a national strategy on the marketing of the country's second most important agricultural commodity.

Rubber demand rise forecast

By Our Commodities Staff CONSUMPTION of rubber, natural and synthetic, is expected to rise by 57 per cent during the next 10 years, according to the International Institute of Synthetic Rubber Producers...

U.S. wheat export curbs opposed

WASHINGTON—Mr. Thomas Foley, chairman of the U.S. House of Representatives agriculture committee, has asked members to join him in opposing amendments aimed at curbing wheat and rice exports...

Soviet wheat purchases in the fourth year of the grain supply agreement. "I would hope that we would meet the August 1 target for the 1980 wheat programme," he said.

Indonesia to buy rice from Philippines

JAKARTA—Indonesia has signed a contract to purchase 100,000 tonnes of rice from the Philippines, a spokesman for the Logistics Board said here yesterday.

U.S. silver purchase plan rejected

WASHINGTON—A House Appropriations subcommittee voted unanimously to recommend that the full committee reject a bill calling for acquisition of \$1.3m worth of silver.

Cheap hake imports banned

BRUSSELS—The EEC Commission has banned imports of frozen hake. It said the fish was coming in at less than Community prices on an informal basis...

Dutch sow more wheat

THE HAGUE—The area sown to winter wheat in the Netherlands rose to 125,000 hectares this year from 102,000 last year.

BRITISH COMMODITY MARKETS

Table with multiple columns listing commodity prices for metals (Copper, Lead, Zinc), grains (Wheat, Barley), and other goods. Includes sub-sections for 'BASE METALS' and 'COPPER'.

COCOA

Table showing cocoa prices for various grades and origins, including 'Cocoa' and 'Cocoa Beans'.

COFFEE

Table showing coffee prices for different types and origins, including 'Coffee' and 'Coffee Beans'.

RUBBER

Table showing rubber prices for various grades and origins, including 'Rubber' and 'Rubber Sheets'.

SOYABEAN MEAL

Table showing soyabean meal prices for different grades and origins, including 'Soyabean Meal'.

AMERICAN MARKETS

Table showing American market prices for various commodities, including 'Metals', 'Grains', and 'Oil'.

INSURANCE BASE RATES

Table showing insurance base rates for different types of policies, including 'Vanburgh Guaranteed' and 'Property Growth'.

GRAINS

Table showing grain prices for wheat, barley, and other cereals, including 'Wheat' and 'Barley'.

SUGAR

Table showing sugar prices for different grades and origins, including 'Sugar' and 'Sugar Cane'.

MEAT/VEGETABLES

Table showing meat and vegetable prices for various types of meat and vegetables, including 'Meat' and 'Vegetables'.

Large advertisement for 'Your opportunity to sell in Korea' featuring 'Industrial and Trade Fairs International Limited' and 'Korean Exhibitions'.

SILVER

Table showing silver prices for different grades and origins, including 'Silver' and 'Silver Bullion'.

WOOL FUTURES

Table showing wool futures prices for different grades and origins, including 'Wool' and 'Wool Futures'.

COTTON

Table showing cotton prices for different grades and origins, including 'Cotton' and 'Cotton Futures'.

INDICES

Table showing various financial indices including 'DOW JONES', 'FINANCIAL TIMES', 'MOODY'S', and 'REUTERS'.

LONDON STOCK EXCHANGE

Companies and Markets

Leading equities a shade firmer after sluggish trade
Gilts and Golds easier on sterling and bullion price

Account Dealing Dates

Opton
\*First Declara- Last Account
Dealings Done Dealings Day

An early technical rally failed to generate any lasting buying enthusiasm in equity markets yesterday, and Gilts edged after Monday's setback on concern about the likelihood of a further rise in interest rates, eased sympathy with sterling's marked weakness yesterday.

The early rallying movement in leading equities was reflected in a gain of 4.1 in the FT 30 share index at 11 am, after which the tone turned hesitant in the absence of follow-through support. The index rose to 3,452.2, with a pickup of 0.2 following its drop of 16 points over the previous four business days.

Institutional investors were holding off again, presumably with an eye to conserving funds for offerings of Government-held shares. Pending news of such sales, ICL, a poor market recently on thoughts that the Government's 24 per cent holding in the group may soon be on offer, rallied to 355.

The FT Gold Mines index shed 2.7 for a two-day loss of 6.4 to 152.4 as the constituent shares reacted to yesterday's further lowering of the bullion price which ended \$21 off at \$298.7 per ounce after having touched \$294 in the early trade.

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Grindlays dip late

Standing a couple of pence

firmly immediately in front of the interim statement. Grindlays turned easier late to close 5 off at 1079 low of 1019 following the disappointing first-half profits and the Board's cautious remarks about second-half prospects.

With the exception of Hawker Siddeley, which encountered a little support and edged up 6 to 185p, the Engineering leaders ended on a slightly easier note after holding steadily for most of the day. Elsewhere, the majority of movements were against holders, but Arrow "A", a weak market of late, rallied 5 to 50p, while British Aluminium picked up a few pence to 185p.

A modest technical improvement to insurances left closing gains in 4. Royals finished that much dearer at 324p as did C. E. Heath, 164p.

An early firm trend in Breweries persisted to leave the leaders a penny or two better on balance. Sandeman again met small profit-taking in the absence of big developments, ending 2 to 233p. Distillers on the other hand, put on 2 to 233p.

In Buildings, Taylor Woodrow framed 6 to 352p in response to the larger-than-expected dividend increase that accompanied the interim results. Buying ahead of the third-quarter figures saw the share rise to 42p, usually reverted to overnight levels. Elsewhere, buying ahead of today's annual results helped Hilliards rise 10 to 340p, but George Bassett came on offer and shed 1 to 90p.

Down 10 on Monday on adverse Press comment, Trusthouse Forte picked up 5 to 137p. Comfort Hotels attracted interest on news that negotiations to lease the Rainbow Suite and Kennington Exhibition Centre had been completed, and the share framed 2 to 23p after 23p. Reflecting the chairman's candid remarks in the annual report, Warner Holidays A put on 14 to 45p.

encountered selling and fell 6 to 185p, while fresh offerings ahead of the preliminary figures drew shortly left Unitech down 2 more at 176p. Among the leaders, Thorn edged up 4 to 420p and GEC 3 to 353p.

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30p. Hays Wharf were quoted ex-rights at 125p, down 6, while the new nil-paid closed at 13p premium, after 14p.

Reports of reduced orders for V-registered vehicles had no apparent effect on Motor Distributors. Let Service rose 2 to 52p before settling for a net gain of 2 at 91p following sharply increased full-year profits and the company's confidence about current trading. Elsewhere, ERF found support and closed 4 better at 105p.

Newspapers tended lower in quiet trading. Daily Mail "A" giving up 5 to 403p. Portsmouth and Sunderland, however, added 2 to 65p; the latter reported first-quarter figures some 40 per cent higher than the comparable period last year.

Dull on Monday on worries about a further rise in interest rates, Properties staged a partial rally on the appearance of cheap buyers with Land Securities improving 5 to 283p and MFCP picking up 2 to 176p. Great Portland Estates, at 316p, recovered all of the previous day's fall of 4, but Stock Conversion added just a couple of pence to 356p. Lingering bid rumours stimulated further interest in Bernard Sunley which put on 12 for a two-day gain of 20 to 402p, but City Officers failed to benefit from the higher interim profits and held at 51p. Bank and Commercial reacted 40 more to 240p in thin trading compared with Monday's following a level of 360p which followed the capital reconstruction.

Oil remains quiet
Quiet conditions persisted in the market for Oil shares and prices rarely strayed far from overnight closing levels. British Petroleum fluctuated narrowly before settling at 1,859p, down 10 on the day, but Shell edged up 4 to 200p, following today's half-yearly figures. Among secondary issues, Oil Exploration hardened 2 to 340p following a

Press suggestion of a possible bid for the company.
Movements in Shippings were limited to a few pence either way. Common Bros, 195p, and J. Fisher, 190p, eased 3 and 2 respectively, but P and O Deferred hardened a penny to 100p. Buying interest was shown in Hersey Decks, 14 to the good at 25p.

Few movements of note were seen among hardy-tested Textiles, although the odd bright spot occurred in smaller-priced issues. Montfort added 3 at 62p, while speculative support returned for Stridax, 4 up at 95p.

Firmer throughout the session, Bats issues followed a fresh rise in trading following the announcement of sterling and the Ordinary rose 6 to 371p with the Deferred 4 up at 255p.

CRA up again
News that two parcels of diamonds from the Ashton diamond venture have been evaluated to show over 90 per cent of gem quality caused a flurry of activity in Australian diamond exploration issues. Conzinc RioTinto, the major participant in the Ashton venture, advanced 10 to 185p, while Ashton Mining rose 6 to 66p, after 68p, and Northern Mining 7 to 69p.

South African Golds, on the other hand, came under selling pressure from the outset owing to a follow-through of overnight American selling—inspired by a downturn in the bullion price. The latter was 52.25 lower at \$298.75 after falling to \$294.625 in the morning.

The Gold Mines index gave up 2.7 to 152.4 and the ex-premium index 0.2 to 141.1. Among heavyweight Golds, Western Holdings lost 1 to £16 and Vaal Reefs 1 to £14, while

FINANCIAL TIMES STOCK INDICES
Table with columns for various stock indices (Government Secs, Fixed Interest, Industrial, Gold Mines, etc.) and their values for different dates (July 31, July 20, July 27, July 26, July 25, July 24, Year ago).

HIGHS AND LOWS
Table showing high and low prices for various stock indices and sectors (Govt. Secs, Fixed Int., Ind. Ord., Gold Mines, etc.) for 1979 and since completion.

DEALING DATES
Table listing dealing dates for various financial instruments and markets (First Deal, Last Deal, etc.)

ACTIVE STOCKS
Table listing active stocks with columns for stock name, denominated in marks, closing price, change, and 1979 high/low.

LONDON TRADED OPTIONS
Table showing option trading data for various stocks (BAC, BOC, EMI, etc.) with columns for option type, price, volume, and equity value.

Vantona better
Reflecting the increased interim earnings, Vantona rose 4 to 115p, while Stavert Zigzag advanced 6 to 72p in helped response to the favourable preliminary results.

Industries dull
A technical rally by the miscellaneous industrial majors left Bnots 5 better at 182p. Unilever 4 dearer at 485p and Buxner and Turner and Newall advanced 1 1/2p and 1 1/2p respectively.

RECENT ISSUES
Table listing recent issues of stocks and bonds, including details like issue size, price, and interest rate.

NEW HIGHS (13)
Table listing 13 stocks that reached new high prices, including Electric Blue, British Funds, and others.

AND FALLS
Table listing stocks that experienced price declines, including various industrial and financial shares.

FIXED INTEREST STOCKS
Table listing fixed interest securities such as government bonds and corporate debentures.

"RIGHTS" OFFERS
Table listing rights issues and offers for various companies, including details on the number of shares and the price.

MONTHLY AVERAGES OF STOCK INDICES
Table showing monthly average values for various stock indices from April to July.

NEW HIGHS AND LOWS FOR 1979
Table listing the highest and lowest prices for various stocks during the year 1979.

ACTUARIES SHARE INDICES
Table listing share indices for actuaries, including details on the index value and changes.

Edmund Dell joins Halifax

Edmund Dell, an MP until last year, has joined Halifax as a director. He was previously a member of the Halifax Building Society and has extensive experience in the financial services industry.

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AUTHORISED UNIT TRUSTS

Table listing various unit trusts such as Minister Fund Managers Ltd., NLA Unit Trust Managers Ltd., and others, with columns for fund names, managers, and dates.

OFFSHORE AND OVERSEAS FUNDS

Table listing offshore and overseas funds such as Alexander Fund, King & Shaxson Mgrs., and others, with columns for fund names, managers, and dates.

INSURANCE AND PROPERTY BONDS

Large table listing insurance and property bonds, including companies like Abbey Life Assurance Co. Ltd., London Life Assurance Co. Ltd., and others, with columns for company names, policies, and dates.

Table listing various insurance and property bond products, including policies like 'The London & Manchester Ass. Co. Ltd.' and others, with columns for product names and details.

Vertical text on the left margin, possibly containing additional financial data or commentary.

NOTES section at the bottom left, providing additional information or disclaimers.

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BRITISH FUNDS Table with columns: 1979 High, 1979 Low, Stock, Price, Div. Yield, etc.

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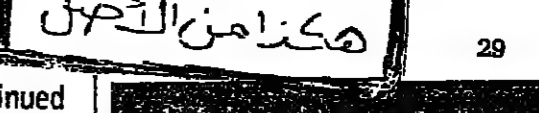
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Table of stock prices for finance and land, including Anglo-Finance, Anglo-Land, Anglo-Trust, etc.

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Table of stock prices for REGIONAL MARKETS, including Anglo-Regional, Anglo-Deepest, Anglo-Export, etc.

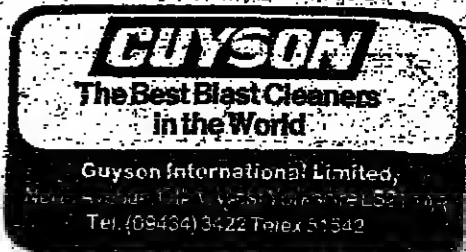
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THE LEX COLUMN

Sterling hits an air pocket

Some of the froth boiled away from sterling yesterday, as it tumbled by around 61 cents against the dollar and lost as much as 2.3 per cent in terms of the trade-weighted index. Sterling still managed to end well up over the month of July...

Index rose 3.2 to 454.2

After its rapid growth a few years ago the group's order book has now reached a plateau and margins are under pressure...

Chrysler Corp.

The disastrous second quarter figures from Chrysler Corporation have drawn a public statement of concern from the U.S. Treasury...

Taylor Woodrow

The combination of an unnecessary £13m rights issue earlier this year plus a set of uninspiring 1978 profit figures has dogged the Taylor Woodrow share price in recent months...

£600m local government cuts

BY PAUL TAYLOR AND LISA WOOD

LOCAL AUTHORITIES were told yesterday to cut planned current expenditure in 1980-81 by more than £600m—making savings of 5 per cent.

After allowing for a planned marginal increase in local authority expenditure next year, the cuts represent a further 1 per cent reduction in current expenditure over the 3 per cent saving the Government has asked authorities to make this current financial year.

The Government's plans were split out by Mr. Michael Heseltine, Environment Secretary, at a meeting with the local authority associations yesterday and will inevitably lead to further reductions in the level of services.

Mr. Heseltine told the local authorities that they should plan on the basis of a reduction of 5 per cent on the projected level of £12,138m set out in the latest expenditure White Paper.

The full impact of the cuts on council rates next year remains unclear, partly because Government restrictions on the level and charges for services are to be eased and also because the Government has yet to decide how much of the local authority expenditure will be financed through the rate support grant.

Yesterday's briefing with the local authority associations dealt with spending across the board.

There will be further discussions on how the cuts will affect specific services like education which accounts for 50 per cent of local authority spending.

In making the 5 per cent cut Government has selected a mid-way option after asking the local authorities to examine the implications of a range of possible cuts between 2.5 per cent and 7.5 per cent.

In the current year, the Government has already announced a £300m reduction in the final rate support grant settlement and has asked local authorities to make savings of 3 per cent on the level of expenditure covered by the rate support grant itself.

Mr. Heseltine said he will announce proposals in the autumn to give local authorities greater flexibility over statutory obligations to provide school milk and meals and to remove the restrictions on charges for other services including school transport.

In total these changes could result in savings of more than £200m in 1980/81, he said. He is also to introduce legislation allowing local authorities to charge for planning applications—perhaps up to £100 for each application.

The relaxations on the level of services and the charges for services will make it easier for the local authorities to meet the spending targets. Nevertheless the announcement of the cuts brought a mixed response from the local authorities.

Mr. John Grugon, chairman of the Association of County Councils' policy committee, said it was now up to individual local authorities to decide how the cuts will be made.

He warned: "It is inevitable that there will be redundancies. There will have to be a great tightening of belts and reduction in standards."

Mr. Tan McCallum, chairman of the Association of District Councils, rejected Mr. Heseltine's suggestion that the quality of services is not dependent on the level of expenditure. He said the cuts would mean "changed service".

Mr. A. G. "Tag" Taylor, chairman of the Association of Metropolitan Authorities, complained that the Government had still not said whether the rate support grant would be increased this year to cover pay awards expected to be announced by the Clegg Commission today.

Under the 1977 Health Service Act the Minister has the power to dismiss the members of an area health authority and replace them with a special commissioner in certain circumstances.

The stand taken by the health authority won support from doctors and the British Medical Association's Lambeth and Southwark Division who argued that the cuts were unacceptable because of the reduction in services which would follow.

Rebel health group may face axe

BY PAUL TAYLOR

The Minister is thought to have already reached a decision on how he should deal with the problem he faces but yesterday deferred an announcement pending further legal advice.

Lambeth, Southwark and Lewisham Area Health Authority, is one of 99 area health authorities in England and Wales which are responsible, with district management teams, for the day-to-day running of the National Health Service.

On Monday night the authority voted by 19 votes to five not to cut spending to stay within Government spending limits which Mr. Jenkin said will not be increased to cover the effect of increased value-added tax and other price inflation.

The authority's decision means that Mr. Jenkin faces the difficult choice of allowing it to overspend in 1979-80—which could open the way for other health authorities to do the same and thereby undermine the Government's attempts to contain public expenditure—or attempt to enforce cuts in some other way.

Under the 1977 Health Service Act the Minister has the power to dismiss the members of an area health authority and replace them with a special commissioner in certain circumstances.

BP move increases gloom on eve of Conference

BY MARTIN DICKSON AND MICHAEL HOLMAN IN LUSAKA

NIGERIA'S decision to nationalise BP's assets intensified the gloom surrounding the Commonwealth Conference in Lusaka and seemed to diminish the chances of a compromise agreement on Rhodesia.

The move was regarded in Lusaka as deliberately timed to coincide with the formal opening of the conference today and thus serve fresh notice on Britain that Nigeria is angry with its Rhodesia policy and its Southern Africa policy in general.

There was concern that the Lagos government's announcement came shortly after a visit to Nigeria by Mr. Malcolm Fraser, the Australian Prime Minister, who has been trying to find a compromise formula to defuse the Rhodesia issue. The indications last night were that he had produced no softening in the Nigerian stance. The Nigerian announcement came as Mrs. Margaret Thatcher,

hegan a delicate series of informal consultations with key African leaders in preparation for Friday's conference debate on Rhodesia.

Accompanied by Lord Carrington, the Foreign Secretary, she was scheduled to have a private dinner with President Kenneth Kaunda of Zambia. The meeting came only two days after a fierce attack by the President on British policy over Rhodesia and Mrs. Thatcher personally.

Strategy

Earlier yesterday, Mrs. Thatcher and Lord Carrington held talks with President Nyerere of Tanzania, and hope to meet other African leaders, including the Nigerian Foreign Minister, before Friday.

President Nyerere is chairman of the five front-line African states ranged against Rhodesia, whose leaders held

an unexpected meeting late on Monday night to co-ordinate strategy for the conference.

Under the provisional agenda for the conference, Southern African issues are not expected to be discussed in detail until Friday. This will be followed by a weekend of informal talks which "Commonwealth officials hope might help produce a measure of understanding on Rhodesia."

After today's opening ceremony the conference will go into a general discussion of the world political situation. It will then move on to the problems of South-East Asia, including the plight of the Vietnamese boat people.

Other issues to be discussed by the 27 Heads of Government and Ministers from 12 other countries include the world economy, Commonwealth industrial co-operation and the development problems of the smallest members.

Rhodesia approach 'could jeopardise Nigeria investments'

BY DAVID TONGE, DIPLOMATIC CORRESPONDENT

THE BRITISH Government has been warned by businessmen that its approach to Rhodesia could put all British investments in Nigeria "very much in jeopardy."

The warning reflects the growing concern among companies with large stakes in black Africa. On several occasions this concern has been expressed to ministers and senior officials.

British investments in West Africa alone are estimated at around £800m while Britain's trade with black Africa last year totalled £3.3bn, over twice the total with South Africa.

The group, which included representatives of BP, Shell, Dunlop and Barclay's International, told Mr. Luce that premature recognition of Zimbabwe-Rhodesia could lead to strong reactions from Nigeria. Its members also expressed their apprehension about Mrs. Margaret Thatcher's statement in Canberra that she did not expect the British Parliament to renew sanctions in November.

The group have since been lobbying Tory MPs while the Association of British Chambers of Commerce has also been in contact with the authorities. The ABCC has companies involved in black Africa and Southern Africa among its members. It has stressed the need for protecting UK investments in South Africa which, including portfolio investment, are of the order of £400.

Weather

UK TODAY SHOWERS, heavy rain at times London, East Anglia, S.E. Cent., S. England, Midlands. Rain, heavy at times. Max. 18C (64F).

Table with columns for location, weather, and temperature. Includes sections for UK TODAY and WORLDWIDE.

Belfast shipyard cuts 630 jobs

BY OUR BELFAST CORRESPONDENT

HARLAND AND WOLFF, Belfast shipbuilders, said last night that formal proposals for 630 redundancies from the workforce in mid-autumn had been put to shop stewards.

The proposal had been discussed by the stewards with district officials of the Confederation of Shipbuilding and Engineering Unions and the union has now called for a meeting with yard management. The company has not so far put a figure on the likely level of future redundancies beyond the 630 this autumn, but the Confederation claimed that the 8,000 labour force would be cut by 1,800 by next March.

The Government has told the company, which is wholly owned by the Northern Ireland Department of Commerce, that public funds to cover losses in the present financial year will be limited to £22m. Mr. Giles Shaw, the Ulster Under-Secretary, warned management and workers a week ago that if they could not work within this limit, then the ship-

yard could not continue to operate. The present order book will be completed by late 1981 and even if new orders were won in the near future, it is clear the labour force could not remain at its present level.

Harland and Wolff's trading loss in 1978 was £21.4m against a provision of £8.6m which was deemed adequate less than a year previously. Sir Brian Morton, the chairman, said in the annual report that losses associated with completing the current order book during 1979 and 1980 could be £9.3m greater than previously assumed.

Efficiency

The unions, which are seeking meetings with the management and Government, want the redundancies postponed for six months to enable the labour force to show that it can improve performance. Mr. Jimmy Graham, the Confederation secretary, said: "While productivity and efficiency can and must be im-

proved, we refuse to accept that all the ills of the shipyards can be laid at the feet of the labour force."

The Northern Ireland committee of the Irish Congress of Trade Unions will raise the shipyard issue today at talks with Mr. Humphrey Atkins, the Ulster Secretary, about the effect of Government spending cuts.

The Confederation is to meet British Shipbuilders on Monday to discuss the corporation's plans for yard closures. These are expected to involve over 8,000 redundancies, out of the merchant shipbuilding workforce of 28,000.

Mr. Michael Casey, the corporation's chief executive decided to go ahead with drawing up a detailed plan for closures after the Government announced in July that aid of £190m over two years has been guaranteed to the corporation. Further aid would depend on performance, but the Government did not intend to underwrite a fixed capacity for the shipyards.

Aberdeen dockers snub TGWU

BY NICK GARNETT, LABOUR STAFF

DOCKERS AT Aberdeen refused a request from their union yesterday to stop handling food containers bound for North Sea oil rigs and platforms.

Dockers and cargo handlers and inland distribution centres agreed to the request—from the Transport and General Workers' Union—in support of a strike never pay by offshore catering workers. But the Aberdeen dockers' decision was more significant because the port is the main centre for shipping food and materials to offshore installations.

The four main catering companies, which are in dispute with their workforce, said 18 of the offshore installations they served were affected by the dispute.

The construction section of the Amalgamated Union of Engineering Workers yesterday reaffirmed instruction to its members not to cross picket lines mounted by the TGWU and the National Union of Seamen, which also represents catering staff.

This would normally affect up to 1,500 workers due to go out to installations in the next week. But the oil companies have flown off more than 1,500 non-essential personnel as a result of the strike.

The action is affecting forward construction work. The Inter-Union Offshore Committee is expected to hold an emergency meeting today to discuss the strike, which could involve up to 1,000 catering workers. The British Airline

Pilots' Association is expected to be asked not to fly relief catering crews from Aberdeen and Sunburgh in the Shetlands to offshore installations.

The seamen's union said yesterday that it was strengthening its picketing to try to prevent the organisation of relief crews.

The four catering companies appear determined not to improve their proposal of a £440 minimum rate—for four weeks, two on, two off. The unions' claim is £600.

The companies said they were still providing a service to most installations by using management and non-striking workers. The seamen's union believes that unless the companies alter their position, the dispute may be prolonged.

Continued from Page 1

BP

other foreign companies in Nigeria, the Government said "other companies operating in Nigeria had nothing to fear as long as they continue to respect the policies of the Nigerian Government and the feelings of Nigerians, especially in the sensitive area of apartheid and obnoxious racialist policies in Southern Africa."

Ray Daffer, Energy Editor, writes: In recent years Nigeria has been one of the major sources of BP's crude oil supplies, along with Iran and Kuwait. Last year, for instance, BP lifted 360,000 barrels a day of Nigerian crude, some 9.4 per cent of its total supplies.

The company has also been badly hit by the production cuts in Iran; and could find it more difficult to obtain Kuwaiti oil as reports in Kuwait suggest that the country is planning to reduce its production by a quarter, from about 2m b/d to 1.5m b/d, possibly in April 1980.

BP said in London last night that it had been informed that compensation would be paid by the Nigerian Government. The company would not disclose the value of the assets concerned.

Continued from Page 1

CBI

21 years old this month. Answers provided by companies on the outlook for future exports and on price constraints on their competitiveness abroad are the worst produced since questions were first asked on these points early in the survey's life—it is 21 years of this month.

In the CBI's economic situation report, also published yesterday, its regional offices stress the problems of a decline in activity and also express fears about the prospects for liquidity in the coming months.

The economic report also includes a pessimistic view on the UK current account deficit and expects only a slight improvement to an average annual rate of about £2bn over the next 18 months.

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